

Sequence Listing

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 Baker, Kevin P.
 Botstein, David
 Desnoyers, Luc
 Eaton, Dan L.
 Ferrara, Napoleone
 Fong, Sherman
 Gerber, Hanspeter
 Gerritsen, Mary E.
 Goddard, Audrey
 Godowski, Paul J.
 Grimaldi, J. Christopher
 Gurney, Austin L.
 Kljavin, Ivar J.
 Napier, Mary A.
 Pan, James
 Paoni, Nicholas F.
 Roy, Margaret Ann
 Stewart, Timothy A.
 Tumas, Daniel
 Watanabe, Colin K.
 Williams, P. Mickey
 Wood, William I.
 Zhang, Zemin

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Trp	Ile	Cys	Ile	Val 110	Ile	Thr	Gly	Leu	Ala 115	Met	Asp	Met	Gln	Leu 120
Leu	Met	Ile	Pro	Leu 125	Ile	Met	Ser	Val	Leu 130	Tyr	Val	Trp	Ala	Gln 135
Leu	Asn	Arg	Asp	Met 140	Ile	Val	Ser	Phe	Trp 145	Phe	Gly	Thr	Arg	Phe 150
Lys	Ala	Cys	Tyr	Leu 155	Pro	Trp	Val	Ile	Leu 160	Gly	Phe	Asn	Tyr	Ile 165
Ile	Gly	Gly	Ser	Val 170	Ile	Asn	Glu	Leu	Ile 175	Gly	Asn	Leu	Val	Gly 180
His	Leu	Tyr	Phe	Phe 185	Leu	Met	Phe	Arg	Tyr 190	Pro	Met	Asp	Leu	Gly 195
Gly	Arg	Asn	Phe	Leu 200	Ser	Thr	Pro	Gln	Phe 205	Leu	Tyr	Arg	Trp	Leu 210
Pro	Ser	Arg	Arg	Gly 215	Gly	Val	Ser	Gly	Phe 220	Gly	Val	Pro	Pro	Ala 225
Ser	Met	Arg	Arg	Ala 230	Ala	Asp	Gln	Asn	Gly 235	Gly	Gly	Gly	Arg	His 240
Asn	Trp	Gly	Gln	Gly 245	Phe	Arg	Leu	Gly	Asp 250	Gln				

<210> 7

<212> DNA

<400> 7

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 ggggttcctgc gagggcccaga ctgggtccatc cccatcttgg actttgtgga 300
 acagaaatgt gaagttaact gcaaaggagg gcatgtgata actccaggaa 350
 gcccagagcc ggtgattttg gtggcctgtg ttccccctgt ttttgatgat 400
 gaagaagaaa gcaaattgac ctatacagag attcatcagg aatacaaaga 450
 actagttgaa aagctgttag aaggttacct caaagaaatt ggaattaatg 500
 aagatcaatt tcaagaagca tgcacttctc ctcttgcaaa gaccataca 550
 tcacaggcca ttttgcaacc tgtgttggca gcagaagatt ttactatctt 600
 taaagcaatg atgggtccaga aaaacattga aatgcagctg caagccattc 650
 gaataattca agagagaaat ggtgtattac ctgactgctt aaccgatggc 700
 tctgatgtgg tcagtacact tgaacacgaa gagatgaaaa tcctgaggga 750
 agttcttaga aaatcaaaag aggaatatga ccaggaagaa gaaaggaaga 800
 ggaaaaaaca gttatcagag gctaaaacag aagagcccac agtgcattcc 850
 agtgaagctg caataatgaa taattcccaa ggggatgggtg aacattttgc 900
 acaccacccc tcagaagtta aaatgcattt tgctaatacag tcaatagaac 950
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 tcaagcagaa gagagataag ttgatgtcca tgagaaagga tatgaggact 1150
 aaacagatac aaaatatgga gcagaaagga aaaccactg gggaggtaga 1200
 ggaaatgaca gagaaaccag aaatgacagc agaggagaag caaacattac 1250
 taaagaggag attgcttgca gagaaactca aagaagaagt tattaataag 1300
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 taaattatctt agtccttaca ctg 1373

<210> 8
 <211> 367
 <212> PRT
 <213> Homo sapiens

<400> 8
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 1 5 10 15
 Ile Ala Gly Phe Leu Arg Gly Pro Asp Trp Ser Ile Pro Ile Leu

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Asp	Phe	Val	Glu	Gln 35	Lys	Cys	Glu	Val	Asn 40	Cys	Lys	Gly	Gly	His 45
Val	Ile	Thr	Pro	Gly 50	Ser	Pro	Glu	Pro	Val 55	Ile	Leu	Val	Ala	Cys 60
Val	Pro	Leu	Val	Phe 65	Asp	Asp	Glu	Glu	Glu 70	Ser	Lys	Leu	Thr	Tyr 75
Thr	Glu	Ile	His	Gln 80	Glu	Tyr	Lys	Glu	Leu 85	Val	Glu	Lys	Leu	Leu 90
Glu	Gly	Tyr	Leu	Lys 95	Glu	Ile	Gly	Ile	Asn 100	Glu	Asp	Gln	Phe	Gln 105
Glu	Ala	Cys	Thr	Ser 110	Pro	Leu	Ala	Lys	Thr 115	His	Thr	Ser	Gln	Ala 120
Ile	Leu	Gln	Pro	Val 125	Leu	Ala	Ala	Glu	Asp 130	Phe	Thr	Ile	Phe	Lys 135
Ala	Met	Met	Val	Gln 140	Lys	Asn	Ile	Glu	Met 145	Gln	Leu	Gln	Ala	Ile 150
Arg	Ile	Ile	Gln	Glu 155	Arg	Asn	Gly	Val	Leu 160	Pro	Asp	Cys	Leu	Thr 165
Asp	Gly	Ser	Asp	Val 170	Val	Ser	Asp	Leu	Glu 175	His	Glu	Glu	Met	Lys 180
Ile	Leu	Arg	Glu	Val 185	Leu	Arg	Lys	Ser	Lys 190	Glu	Glu	Tyr	Asp	Gln 195
Glu	Glu	Glu	Arg	Lys 200	Arg	Lys	Lys	Gln	Leu 205	Ser	Glu	Ala	Lys	Thr 210
Glu	Glu	Pro	Thr	Val 215	His	Ser	Ser	Glu	Ala 220	Ala	Ile	Met	Asn	Asn 225
Ser	Gln	Gly	Asp	Gly 230	Glu	His	Phe	Ala	His 235	Pro	Pro	Ser	Glu	Val 240
Lys	Met	His	Phe	Ala 245	Asn	Gln	Ser	Ile	Glu 250	Pro	Leu	Gly	Arg	Lys 255
Val	Glu	Arg	Ser	Glu 260	Thr	Ser	Ser	Leu	Pro 265	Gln	Lys	Gly	Leu	Lys 270
Ile	Pro	Gly	Leu	Glu 275	His	Ala	Ser	Ile	Glu 280	Gly	Pro	Ile	Ala	Asn 285
Leu	Ser	Val	Leu	Gly 290	Thr	Glu	Glu	Leu	Arg 295	Gln	Arg	Glu	His	Tyr 300
Leu	Lys	Gln	Lys	Arg 305	Asp	Lys	Leu	Met	Ser 310	Met	Arg	Lys	Asp	Met 315

Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro	Thr
				320					325					330
Gly	Glu	Val	Glu	Glu	Met	Thr	Glu	Lys	Pro	Glu	Met	Thr	Ala	Glu
				335					340					345
Glu	Lys	Gln	Thr	Leu	Leu	Lys	Arg	Arg	Leu	Leu	Ala	Glu	Lys	Leu
				350					355					360
Lys	Glu	Glu	Val	Ile	Asn	Lys								
				365										

<210> 9
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 9
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 ctatacagag attcatcagg aatacaaaga actagttgaa aagctgttag 100
 aaggttacct caaagaaatt ggaattaatg aagatcaatt tcaagaagca 150
 tgcacttctc ctcttgcaaa gaccataca tcacaggcca tttttgcaac 200
 ctgtgttggc agcagaagat ttactatct ttaaagcaat gatggtccag 250
 aaaaacattg aaatgcagct gcaagccatt cgaataattc aagagagaaa 300
 tgggtgtatta cctgactgct taaccgatgg ctctgatgtg gtcagtgacc 350
 ttgaacacga agagatgaaa atcctgaggg aagttcttag aaaatcaaaa 400
 gaggaatatg accaggaa 418

<210> 10
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 10
 ttgacctata cagagattca tc 22

<210> 11
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 11
 ctaagaactt ccctcaggat ttt 23

<210> 12
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 12
atgaagatca atttcaagaa gcatgcactt ctctctttgc 40

<210> 13
<211> 2886
<212> DNA
<213> Homo sapiens

<400> 13
gcggtggtttt tggtctgcaa taggcgggctt agagggaggg gctttttcgc 50
ctatacctac tgtagcttct ccacgtatgg accctaaagg ctactgctgc 100
tactacgggg ctagacagtt actgtctcag ctctaggatg tgcgttcttc 150
cactagaagc tcttctgagg gaggtaatta aaaaacagtg gaatggaaaa 200
acagtgctgt agtcattctg taatatgctc cttgtcaaca atgtatacat 250
tcctgctagg tgccatattc attgctttta gctcaagtcg catcttacta 300
gtgaagtatt ctgccaatga agaaaacaag tatgattatc ttccaactac 350
tgtgaatgtg tgctcagaac tgggtgaagct agttttctgt gtgcttgtgt 400
cattctgtgt tataaagaaa gatcatcaaa gtagaaattt gaaatatgct 450
tcctggaagg aattctctga ttctatgaag tgggtccattc ctgcctttct 500
ttatttctctg gataaactga ttgtcttcta tgtcctgtcc tatcttcaac 550
cagccatggc tggtatcttc tcaaatttta gcattataac aacagctctt 600
ctattcagga tagtgctgaa gaggcgtcta aactggatcc agtgggcttc 650
cctctgact ttatttttgt ctattgtggc cttgactgcc gggactaaaa 700
ctttacagca caacttgcca ggacgtggat ttcatcacga tgcctttttc 750
agcccttcca attcctgcct tcttttcaga agtgagtgtc ccagaaaaga 800
caattgtaca gcaaaggaat ggacttttcc tgaagctaaa tggaacacca 850
cagccagagt ttccagtcac atccgtcttg gcatgggcca tgttcttatt 900
atagtccagt gttttatttc ttcaatggct aatatctata atgaaaagat 950
actgaaggag gggaaccagc tcaactgaaag catcttcata cagaacagca 1000
aactctattt ctttggcatt ctgtttaatg ggctgactct gggccttcag 1050

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 caggttacca ctgtcattat cacaacagtg tctgtcctgg tctttgactt 1250
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 tttgggatga tgtagtctgt gctaaatatt ttgctgaaga agcagtttct 2050
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acagtgtac ttcacactta aaagtgcagtg gtatTTTTca tggTatTTtg 2550
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tctgtctctcc tttctcttaa gtttcatgca gatgaatata aggtaatata 2800
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tggTggaaaat ttgtaattaa aataattatt aaacct 2886

<210> 14
<211> 424
<212> PRT
<213> Homo sapiens

<400> 14
Met Glu Lys Gln Cys Cys Ser His Pro Val Ile Cys Ser Leu Ser
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Thr Met Tyr Thr Phe Leu Leu Gly Ala Ile Phe Ile Ala Leu Ser
20 25 30
Ser Ser Arg Ile Leu Leu Val Lys Tyr Ser Ala Asn Glu Glu Asn
35 40 45
Lys Tyr Asp Tyr Leu Pro Thr Thr Val Asn Val Cys Ser Glu Leu
50 55 60
Val Lys Leu Val Phe Cys Val Leu Val Ser Phe Cys Val Ile Lys
65 70 75
Lys Asp His Gln Ser Arg Asn Leu Lys Tyr Ala Ser Trp Lys Glu
80 85 90
Phe Ser Asp Phe Met Lys Trp Ser Ile Pro Ala Phe Leu Tyr Phe
95 100 105
Leu Asp Asn Leu Ile Val Phe Tyr Val Leu Ser Tyr Leu Gln Pro
110 115 120
Ala Met Ala Val Ile Phe Ser Asn Phe Ser Ile Ile Thr Thr Ala
125 130 135
Leu Leu Phe Arg Ile Val Leu Lys Arg Arg Leu Asn Trp Ile Gln
140 145 150
Trp Ala Ser Leu Leu Thr Leu Phe Leu Ser Ile Val Ala Leu Thr
155 160 165
Ala Gly Thr Lys Thr Leu Gln His Asn Leu Ala Gly Arg Gly Phe
170 175 180

His His Asp Ala Phe Phe Ser Pro Ser Asn Ser Cys Leu Leu Phe
185 190 195

Arg Ser Glu Cys Pro Arg Lys Asp Asn Cys Thr Ala Lys Glu Trp
200 205 210

Thr Phe Pro Glu Ala Lys Trp Asn Thr Thr Ala Arg Val Phe Ser
215 220 225

His Ile Arg Leu Gly Met Gly His Val Leu Ile Ile Val Gln Cys
230 235 240

Phe Ile Ser Ser Met Ala Asn Ile Tyr Asn Glu Lys Ile Leu Lys
245 250 255

Glu Gly Asn Gln Leu Thr Glu Ser Ile Phe Ile Gln Asn Ser Lys
260 265 270

Leu Tyr Phe Phe Gly Ile Leu Phe Asn Gly Leu Thr Leu Gly Leu
275 280 285

Gln Arg Ser Asn Arg Asp Gln Ile Lys Asn Cys Gly Phe Phe Tyr
290 295 300

Gly His Ser Ala Phe Ser Val Ala Leu Ile Phe Val Thr Ala Phe
305 310 315

Gln Gly Leu Ser Val Ala Phe Ile Leu Lys Phe Leu Asp Asn Met
320 325 330

Phe His Val Leu Met Ala Gln Val Thr Thr Val Ile Ile Thr Thr
335 340 345

Val Ser Val Leu Val Phe Asp Phe Arg Pro Ser Leu Glu Phe Phe
350 355 360

Leu Glu Ala Pro Ser Val Leu Leu Ser Ile Phe Ile Tyr Asn Ala
365 370 375

Ser Lys Pro Gln Val Pro Glu Tyr Ala Pro Arg Gln Glu Arg Ile
380 385 390

Arg Asp Leu Ser Gly Asn Leu Trp Glu Arg Ser Ser Gly Asp Gly
395 400 405

Glu Glu Leu Glu Arg Leu Thr Lys Pro Lys Ser Asp Glu Ser Asp
410 415 420

Glu Asp Thr Phe

<210> 15
<211> 755
<212> DNA
<213> Homo sapiens

<400> 15
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 tactacgggg ctagacagtt actgtctcag ctctaggatg tgcgttcttc 200
 cactagaagc tcttctgagg gaggtaatta aaaaacagtg gaatggaaaa 250
 acagtgctgt agtcacacctg taatatgctc cttgtcaaca atgtatacat 300
 tcctgctagg tgccatattc attgctttta gctcaagtcg catcttacta 350
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 tgtgaatgtg tgctcagaac tggatgaagct agttttctgt gtgcttgtgt 450
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 cagccatggc tggttatcttc tcaaatttta gcattataac aacagctctt 650
 ctattcagga tagtgctgaa gaggcgtcta aactggatcc agtgggcttc 700
 cctcctgact ttatttttgt ctattgtggc cttgactgcc gggactaaaa 750
 cttta 755

<210> 16
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 16
 ctatacctac tgtagcttct 20

<210> 17
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 17
 tcagagaatt ccttcagga 20

<210> 18
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 18

acagtgctgt agtcatacctg taatatgctc cttgtcaaca 40

<210> 19

<211> 2142

<212> DNA

<213> Homo sapiens

<400> 19

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gcggcctgcg gggcagagga gcatcccgtc taccaggtcc caagcggcgt 150
ggcccgcggg tcatggccaa aggagaaggc gccgagagcg gctccgcggc 200
ggggctgcta cccaccagca tcctccaaag cactgaacgc ccggcccagg 250
tgaagaaaga accgaaaaag aagaaacaac agttgtctgt ttgcaacaag 300
ctttgctatg cacttggggg agccccctac caggtgacgg gctgtgccct 350
gggtttcttc cttcagatct acctattgga tgtggctcag gtgggccctt 400
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gaccccttg tgggcctctg catcagcaaa tccccctgga cctgcctggg 500
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tccctactcg gctctcacca tggtcatcag caaccgagca gactgagcgg 700
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gcgtgcggga gcagagagaa ccctatgaag cccagcagtc tgagccaatc 1000
gcctacttcc ggggcctacg gctggtcatt agccacggcc catacatcaa 1050
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 aacctcatca ttacatatgc ggtagctgtg gcagctggca tcagtgtggc 1350
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 cactgtgggg ccggctgtct tgtggcctcc tgcctcccct ctgcctgcct 1950
 gtggggccaa gccctggggc tgccactgtg aatatgccaa ggactgatcg 2000
 ggcctagccc ggaacactaa tgtagaaacc ttttttttac agagcctaata 2050
 taataactta atgactgtgt acatagcaat gtgtgtgtat gtatatgtct 2100
 gtgagctatt aatgttatta attttcataa aagctggaaa gc 2142

<210> 20
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 20
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 Trp Ala Glu Pro Gly Met Pro Ser Gln Thr Pro Trp Trp Ala Ser
 20 25 30
 Ala Ser Ala Asn Pro Pro Gly Pro Ala Trp Val Ala Leu Cys Pro
 35 40 45
 Gly Ser Ser Ser Pro Arg Pro Trp Pro Ser Leu Pro Thr Ser Ser
 50 55 60
 Ser Gly Ser Cys Pro Thr Ser His Thr Ala Arg Pro Ile Gly Thr
 65 70 75

Cys	Phe	Ser	Ile	Ala 80	Ser	Leu	Lys	Gln	Trp 85	Ser	Arg	Val	Ser	Met 90
Phe	Pro	Thr	Arg	Leu 95	Ser	Pro	Cys	Ser	Ser 100	Ala	Thr	Glu	Gln	Thr 105
Glu	Arg	Asp	Ser	Ala 110	Thr	Ala	Tyr	Arg	Met 115	Thr	Val	Glu	Val	Leu 120
Gly	Thr	Val	Leu	Gly 125	Thr	Ala	Ile	Gln	Gly 130	Gln	Ile	Val	Gly	Gln 135
Ala	Asp	Thr	Pro	Cys 140	Phe	Gln	Asp	Phe	Asn 145	Ser	Ser	Thr	Val	Ala 150
Ser	Gln	Ser	Ala	Asn 155	His	Thr	His	Gly	Thr 160	Thr	Ser	His	Arg	Glu 165
Thr	Gln	Lys	Ala	Tyr 170	Leu	Leu	Ala	Ala	Gly 175	Val	Ile	Val	Cys	Ile 180
Tyr	Ile	Ile	Cys	Ala 185	Val	Ile	Leu	Ile	Leu 190	Gly	Val	Arg	Glu	Gln 195
Arg	Glu	Pro	Tyr	Glu 200	Ala	Gln	Gln	Ser	Glu 205	Pro	Ile	Ala	Tyr	Phe 210
Arg	Gly	Leu	Arg	Leu 215	Val	Met	Ser	His	Gly 220	Pro	Tyr	Ile	Lys	Leu 225
Ile	Thr	Gly	Phe	Leu 230	Phe	Thr	Ser	Leu	Ala 235	Phe	Met	Leu	Val	Glu 240
Gly	Asn	Phe	Val	Leu 245	Phe	Cys	Thr	Tyr	Thr 250	Leu	Gly	Phe	Arg	Asn 255
Glu	Phe	Gln	Asn	Leu 260	Leu	Leu	Ala	Ile	Met 265	Leu	Ser	Ala	Thr	Leu 270
Thr	Ile	Pro	Ile	Trp 275	Gln	Trp	Phe	Leu	Thr 280	Arg	Phe	Gly	Lys	Lys 285
Thr	Ala	Val	Tyr	Val 290	Gly	Ile	Ser	Ser	Ala 295	Val	Pro	Phe	Leu	Ile 300
Leu	Val	Ala	Leu	Met 305	Glu	Ser	Asn	Leu	Ile 310	Ile	Thr	Tyr	Ala	Val 315
Ala	Val	Ala	Ala	Gly 320	Ile	Ser	Val	Ala	Ala 325	Ala	Phe	Leu	Leu	Pro 330
Trp	Ser	Met	Leu	Pro 335	Asp	Val	Ile	Asp	Asp 340	Phe	His	Leu	Lys	Gln 345
Pro	His	Phe	His	Gly 350	Thr	Glu	Pro	Ile	Phe 355	Phe	Ser	Phe	Tyr	Val 360
Phe	Phe	Thr	Lys	Phe	Ala	Ser	Gly	Val	Ser	Leu	Gly	Ile	Ser	Thr

	365		370		375
Leu Ser Leu Asp	Phe Ala Gly Tyr Gln Thr Arg Gly Cys Ser Gln				
	380		385		390
Pro Glu Arg Val	Lys Phe Thr Leu Asn Met Leu Val Thr Met Ala				
	395		400		405
Pro Ile Val Leu	Ile Leu Leu Gly Leu Leu Leu Phe Lys Met Tyr				
	410		415		420
Pro Ile Asp Glu	Glu Arg Arg Arg Gln Asn Lys Lys Ala Leu Gln				
	425		430		435
Ala Leu Arg Asp	Glu Ala Ser Ser Ser Gly Cys Ser Glu Thr Asp				
	440		445		450
Ser Thr Glu Leu	Ala Ser Ile Leu				
	455				

<210> 21
 <211> 571
 <212> DNA
 <213> Homo sapiens

<400> 21
 gggaacgca aaagcatac ctgctggcag cgggggtcat tgtctgtatc 50
 tatataatct gtgctgtcat cctgatcctg ggcgtagcggg agcagagaga 100
 accctatgaa gccagcagc ctgagccaat cgcctacttc cggggcctac 150
 ggctgggtcat gagccacggc ccatacatca aacttattac tggtcttctc 200
 ttcacctctc tggttttcat gctgggtggag gggaactttg tcttgttttg 250
 cacctacacc ttgggcttcc gcaatgaatt ccagaatcta ctctggcca 300
 tcatgctctc ggccacttta accattccca tctggcagtg gttcttgacc 350
 cggtttggca agaagacagc tgtatatgtt gggatctcat cagcagtgcc 400
 atttctcatc ttggtggccc tcatggagag taacctcatc attacatatg 450
 cggtagctgt ggcagctggc atcagtgtgg cagctgcctt cttactaccc 500
 tgggtccatgc tgctgatgt cattgaacgac ttccatctga agcagcccca 550
 cttccatgga accgagccca t 571

<210> 22
 <211> 1173
 <212> DNA
 <213> Homo sapiens

<400> 22
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aaagggtgcag gtatgagcag gtctgaagac taacattttg tgaagttgta 100
 aaacagaaaa cctggttagaa atgtggtggt ttcagcaagg cctcagtttc 150
 cttccttcag ccttgtaaat ttggacatct gctgctttca tattttcata 200
 cattactgca gtaacactcc accatataga cccggcttta ccttatatca 250
 gtgacactgg tacagtagct ccagaaaaat gcttatttgg ggcaatgcta 300
 aatattgceg cagttttatg cattgctacc atttatgttc gttataagca 350
 agttcatgct ctgagtcctg aagagaacgt tatcatcaaa ttaaacaagg 400
 ctggccttgt acttggaata ctgagttggt taggactttc tattgtggca 450
 aacttccaga aaacaaccct ttttgctgca catgtaagtg gagctgtgct 500
 taccttttgt atgggctcat tatatatgtt tgttcagacc atcctttcct 550
 accaaatgca gcccaaaatc catggcaaac aagtcttctg gatcagactg 600
 ttgttggtta tctggtgtgg agtaagtgca cttagcatgc tgacttgctc 650
 atcagttttg cacagtggca attttgggac tgatttagaa cagaaactcc 700
 attggaaccc cgaggacaaa ggttatgtgc ttcacatgat cactactgca 750
 gcagaatggg ctatgtcatt ttccttcttt ggttttttcc tgacttacat 800
 tcgtgatttt cagaaaattt ctttacgggt ggaagccaat ttacatggat 850
 taacctctta tgacactgca ccttgcccta ttaacaatga acgaacacgg 900
 ctactttcca gagatatttg atgaaaggat aaaatatttc tgtaatgatt 950
 atgattctca gggattgggg aaagggtcac agaagttgct tattcttctc 1000
 tgaaattttc aaccacttaa tcaaggctga cagtaacact gatgaatgct 1050
 gataatcagg aaacatgaaa gaagccattt gatagattat tctaaaggat 1100
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 gaaaataaag tcaaaagact atg 1173

<210> 23
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 23
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 Val Ile Trp Thr Ser Ala Ala Phe Ile Phe Ser Tyr Ile Thr Ala
 20 25 30

Val	Thr	Leu	His	His	Ile	Asp	Pro	Ala	Leu	Pro	Tyr	Ile	Ser	Asp	
				35					40					45	
Thr	Gly	Thr	Val	Ala	Pro	Glu	Lys	Cys	Leu	Phe	Gly	Ala	Met	Leu	
				50					55					60	
Asn	Ile	Ala	Ala	Val	Leu	Cys	Ile	Ala	Thr	Ile	Tyr	Val	Arg	Tyr	
				65					70					75	
Lys	Gln	Val	His	Ala	Leu	Ser	Pro	Glu	Glu	Asn	Val	Ile	Ile	Lys	
				80					85					90	
Leu	Asn	Lys	Ala	Gly	Leu	Val	Leu	Gly	Ile	Leu	Ser	Cys	Leu	Gly	
				95					100					105	
Leu	Ser	Ile	Val	Ala	Asn	Phe	Gln	Lys	Thr	Thr	Leu	Phe	Ala	Ala	
				110					115					120	
His	Val	Ser	Gly	Ala	Val	Leu	Thr	Phe	Gly	Met	Gly	Ser	Leu	Tyr	
				125					130					135	
Met	Phe	Val	Gln	Thr	Ile	Leu	Ser	Tyr	Gln	Met	Gln	Pro	Lys	Ile	
				140					145					150	
His	Gly	Lys	Gln	Val	Phe	Trp	Ile	Arg	Leu	Leu	Leu	Val	Ile	Trp	
				155					160					165	
Cys	Gly	Val	Ser	Ala	Leu	Ser	Met	Leu	Thr	Cys	Ser	Ser	Val	Leu	
				170					175					180	
His	Ser	Gly	Asn	Phe	Gly	Thr	Asp	Leu	Glu	Gln	Lys	Leu	His	Trp	
				185					190					195	
Asn	Pro	Glu	Asp	Lys	Gly	Tyr	Val	Leu	His	Met	Ile	Thr	Thr	Ala	
				200					205					210	
Ala	Glu	Trp	Ser	Met	Ser	Phe	Ser	Phe	Phe	Gly	Phe	Phe	Leu	Thr	
				215					220					225	
Tyr	Ile	Arg	Asp	Phe	Gln	Lys	Ile	Ser	Leu	Arg	Val	Glu	Ala	Asn	
				230					235					240	
Leu	His	Gly	Leu	Thr	Leu	Tyr	Asp	Thr	Ala	Pro	Cys	Pro	Ile	Asn	
				245					250					255	
Asn	Glu	Arg	Thr	Arg	Leu	Leu	Ser	Arg	Asp	Ile					
				260					265						

<210> 24
 <211> 485
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 14, 484
 <223> unknown base

<400> 24
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 ctgatgccga gttccgtctc tcgggtcttt tcctgggtccc aggcaaagcg 100
 gagcggagat cctcaaacgg cctagtgcct cgcgcttcg gagaaaatca 150
 gcggtctaataa taattcctct ggtttgttga agcagttacc aagaatcttc 200
 aaccctttcc caaaaagct aattgagtag acgttcctgt tgagtacacg 250
 ttctgttga ttacaaaag gtgcaggtat gagcaggtct gaagactaac 300
 attttgtgaa gttgtaaaac agaaaacctg ttagaaatgt ggtggtttca 350
 gcaaggcctc agtttccttc cttcagccct tgtaatttgg acatctgctg 400
 ctttcatatt ttcatacatt actgcagtaa cactccacca tatagaccg 450
 gctttacctt atatcagtga cactggtaca gtanc 485

<210> 25
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
 acctgttaga aatgtggtgg ttccagcaag gcctcagttt 40

<210> 26
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 26
 ggagatagct gctatgggtt cttcaggcac aacttaacat ggaag 46

<210> 27
 <211> 1399
 <212> DNA
 <213> Homo sapiens

<400> 27
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 ctgccccgcg ggccggggtg cggagccgac atgcgcccc ttctcggcct 100
 ccttctggtc ttgcgcggt gcaccttcgc cttgtacttg ctgtcgacgc 150
 gactgcccc cgggcggaga ctgggctcca ccgaggaggc tggaggcagg 200
 tcgctgtggt tcccctccga cctggcagag ctgcgggagc tctctgaggt 250

ccttcgagag taccggaagg agcaccaggc ctacgtgttc ctgctcttct 300
 ggggcgccta cctctacaaa cagggttttg ccatccccgg ctccagcttc 350
 ctgaatgttt tagctgggtgc cttgtttggg ccatgggtgg ggcttctgct 400
 gtgctgtgtg ttgacctcgg tgggtgccac atgctgctac ctgctctcca 450
 gtatTTTTTgg caaacagttg gtgggtgcct actttcctga taaagtggcc 500
 ctgctgcaga gaaaggtgga ggagaacaga aacagcttgt tttttttctt 550
 attgtttttg agacttttcc ccatgacacc aaactgggtc ttgaacctct 600
 cgcccccaat tctgaacatt cccatcgtgc agttcttctt ctgagttctt 650
 atcggtttga tcccatataa tttcatctgt gtgcagacag ggtccatcct 700
 gtcaacccta acctctctgg atgctctttt ctctggggac actgtcttta 750
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 aaatttagtc agaaacatct gcaattgaat gaaacaagta ctgctaata 850
 tatacacagt agaaaagaca catgatctgg attttctgtt tgccacatcc 900
 ctggactcag ttgcttattt gtgtaatgga tgtggtcctc taaagcccct 950
 cattgttttt gattgccttc tataggtgat gtggacactg tgcataatg 1000
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 cactttggga ggccgaggcc ggtgattcac aaggtcagga gttcaagacc 1200
 agcctggcca agatggtgaa atcctgtctc taataaaaaat acaaaaatta 1250
 gccaggcgtg gtggcaggca cctgtaatcc cagctactcg ggaggctgag 1300
 gcaggagaat tgcttgaacc aagggtggcag aggttgcagt aagccaagat 1350
 cacaccactg cactccagcc tgggtgatag agtgagacac tgtcttgac 1399

<210> 28
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 28
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 Phe Ala Leu Tyr Leu Leu Ser Thr Arg Leu Pro Arg Gly Arg Arg
 20 25 30

Leu	Gly	Ser	Thr	Glu	Glu	Ala	Gly	Gly	Arg	Ser	Leu	Trp	Phe	Pro	35	40	45
Ser	Asp	Leu	Ala	Glu	Leu	Arg	Glu	Leu	Ser	Glu	Val	Leu	Arg	Glu	50	55	60
Tyr	Arg	Lys	Glu	His	Gln	Ala	Tyr	Val	Phe	Leu	Leu	Phe	Cys	Gly	65	70	75
Ala	Tyr	Leu	Tyr	Lys	Gln	Gly	Phe	Ala	Ile	Pro	Gly	Ser	Ser	Phe	80	85	90
Leu	Asn	Val	Leu	Ala	Gly	Ala	Leu	Phe	Gly	Pro	Trp	Leu	Gly	Leu	95	100	105
Leu	Leu	Cys	Cys	Val	Leu	Thr	Ser	Val	Gly	Ala	Thr	Cys	Cys	Tyr	110	115	120
Leu	Leu	Ser	Ser	Ile	Phe	Gly	Lys	Gln	Leu	Val	Val	Ser	Tyr	Phe	125	130	135
Pro	Asp	Lys	Val	Ala	Leu	Leu	Gln	Arg	Lys	Val	Glu	Glu	Asn	Arg	140	145	150
Asn	Ser	Leu	Phe	Phe	Phe	Leu	Leu	Phe	Leu	Arg	Leu	Phe	Pro	Met	155	160	165
Thr	Pro	Asn	Trp	Phe	Leu	Asn	Leu	Ser	Ala	Pro	Ile	Leu	Asn	Ile	170	175	180
Pro	Ile	Val	Gln	Phe	Phe	Phe	Ser	Val	Leu	Ile	Gly	Leu	Ile	Pro	185	190	195
Tyr	Asn	Phe	Ile	Cys	Val	Gln	Thr	Gly	Ser	Ile	Leu	Ser	Thr	Leu	200	205	210
Thr	Ser	Leu	Asp	Ala	Leu	Phe	Ser	Trp	Asp	Thr	Val	Phe	Lys	Leu	215	220	225
Leu	Ala	Ile	Ala	Met	Val	Ala	Leu	Ile	Pro	Gly	Thr	Leu	Ile	Lys	230	235	240
Lys	Phe	Ser	Gln	Lys	His	Leu	Gln	Leu	Asn	Glu	Thr	Ser	Thr	Ala	245	250	255
Asn	His	Ile	His	Ser	Arg	Lys	Asp	Thr							260		

<210> 29

<211> 1292

<212> DNA

<213> Homo sapiens

<400> 29

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gtcaatcatt ttccagttct cagccgctca gttgtgatca agggacacgt 100

[illegible]

<211> 347

<213> Homo sapiens

Met Asp Leu Ala Ala Asn Glu Ile Ser Ile Tyr Asp Lys Leu Ser
1 5 10 15

36

	20		25		30
Ser Glu Lys Ala Ile Glu Lys Phe Ile Arg Gln Leu Leu Glu Lys	35		40		45
Asn Glu Pro Gln Arg Pro Pro Pro Gln Tyr Pro Leu Leu Ile Val	50		55		60
Val Tyr Lys Val Leu Ala Thr Leu Gly Leu Ile Leu Leu Thr Ala	65		70		75
Tyr Phe Val Ile Gln Pro Phe Ser Pro Leu Ala Pro Glu Pro Val	80		85		90
Leu Ser Gly Ala His Thr Trp Arg Ser Leu Ile His His Ile Arg	95		100		105
Leu Met Ser Leu Pro Ile Ala Lys Lys Tyr Met Ser Glu Asn Lys	110		115		120
Gly Val Pro Leu His Gly Gly Asp Glu Asp Arg Pro Phe Pro Asp	125		130		135
Phe Asp Pro Trp Trp Thr Asn Asp Cys Glu Gln Asn Glu Ser Glu	140		145		150
Pro Ile Pro Ala Asn Cys Thr Gly Cys Ala Gln Lys His Leu Lys	155		160		165
Val Met Leu Leu Glu Asp Ala Pro Arg Lys Phe Glu Arg Leu His	170		175		180
Pro Leu Val Ile Lys Thr Gly Lys Pro Leu Leu Glu Glu Glu Ile	185		190		195
Gln His Phe Leu Cys Gln Tyr Pro Glu Ala Thr Glu Gly Phe Ser	200		205		210
Glu Gly Phe Phe Ala Lys Trp Trp Arg Cys Phe Pro Glu Arg Trp	215		220		225
Phe Pro Phe Pro Tyr Pro Trp Arg Arg Pro Leu Asn Arg Ser Gln	230		235		240
Met Leu Arg Glu Leu Phe Pro Val Phe Thr His Leu Pro Phe Pro	245		250		255
Lys Asp Ala Ser Leu Asn Lys Cys Ser Phe Leu His Pro Glu Pro	260		265		270
Val Val Gly Ser Lys Met His Lys Met Pro Asp Leu Phe Ile Ile	275		280		285
Gly Ser Gly Glu Ala Met Leu Gln Leu Ile Pro Pro Phe Gln Cys	290		295		300
Arg Arg His Cys Gln Ser Val Ala Met Pro Ile Glu Pro Gly Asp	305		310		315

Ile Gly Tyr Val Asp Thr Thr His Trp Lys Val Tyr Val Ile Ala
 320 325 330

Arg Gly Val Gln Pro Leu Val Ile Cys Asp Gly Thr Ala Phe Ser
 335 340 345

Glu Leu

<210> 31
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 31
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 gttctcagcc gttcagttgt gatcaaggga cacgtgggtt ccgaactgcc 150
 agctcagaat agggaaaataa cttgggattt tatattggaa gacatggatc 200
 ttgctgccaa cgagatcagc atttatgaca aactttcaga gactgttgat 250
 ttggtgagac agaccggcca tcagtgtggc atgtcagaga aggcaattga 300
 aaaatttatc agacagctgc tggaaaagaa tgaacctcag agaccccccc 350
 cgcagtatcc tctccttata gttgtgtata aggttctcgc aaccttgga 400
 ttaatcttgc tcaactgccta ctttgtgatt caacctttca gccattagc 450
 acctgagcca gtgctttgtg gagctcac 478

<210> 32
 <211> 3531
 <212> DNA
 <213> Homo sapiens

<400> 32
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 ccactgatga ggcagggtcc ccacttgcag ctgcagcagc tgcagcagct 100
 gcagagcgct gtccttggtt ggtgccactg gtgcgcacgc tgctagaccg 150
 tgccatagag ccgctggggc tgcagtgggg actgccctcc ctgccacca 200
 ccaatggcag cccaccttc tttgaagact tccaggcttt ttgtgccaca 250
 cccgaatggc gccacttcac cgacaaacag gtacagccaa ccatgtccca 300
 gttcgaaatg gacacgatg ctaagagcca cgaccttatg tcaggtttct 350
 ggaatgcctg ctatgacatg cttatgagca gtgggcagcg gcgccagtgg 400
 gagcgcgccc agagtcgtcg ggccttcag gagctggtgc tggaacctgc 450

gcagaggcgg gcgcgcctgg aggggctacg ctacacggca gtgctgaagc 500
 agcaggcaac gcagcactcc atggccctgc tgcactgggg ggcgctgtgg 550
 cgccagctcg ccagcccatg tggggcctgg gcgctgaggg acactcccat 600
 ccccgctgg aaactgtcca gcgccgagac atattcacgc atgcgtctga 650
 agctggtgcc caaccatcac ttcgaccctc acctggaagc cagcgctctc 700
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 cgagtgccag ctggtgacgg tagtggccgt ggtcccaggg ctgctggagg 950
 tcaccacaca gaatgtatac ttctacgatg gcagcactga gcgcgtggaa 1000
 accgaggagg gcatcggcta tgatttccgg cgcctactgg cccagctcgc 1050
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 catcccaccc catacccagg tacggaacca ggtgtactcg tggctcctgc 1250
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 atgacctgtc tcagtacct gtgttccctt gggctcctgca ggactacgtg 1450
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 gcccatcggg gtggtgaacc ccaagcatgc ccagctcgtg agggagaagt 1550
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 acccactact ccaatgcagc aggcgtgatg cactacctca tccgcgtgga 1650
 gcccttcacc tcctgcacg tccagctgca aagtggccgc tttgactgct 1700
 ccgaccggca gttccactcg gtggcggcag cctggcaggc acgcctggag 1750
 agccctgccg atgtgaagga gtcacatccg gaattcttct actttcctga 1800
 cttcctggag aaccagaacg gttttgacct gggctgtctc cagctgacca 1850
 acgagaaggt aggcgatgtg gtgctacccc cgtgggcccag ctctcctgag 1900

gacttcatcc agcagcacccg ccaggctctg gagtcggagt atgtgtctgc 1950
acacctacac gagtggatcg acctcatctt tggctacaag cagcgggggc 2000
cagccgccga ggaggccctc aatgtcttct attactgcac ctatgagggg 2050
gctgtagacc tggaccatgt gacagatgag cgggaacgga aggctctgga 2100
gggcattatc agcaactttg ggagactcc ctgtcagctg ctgaaggagc 2150
cacatccaac tcggctctca gctgaggaag cagcccatcg ccttgcacgc 2200
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aggtgcgag cagccagttc gcgcggaagc tgtggcgggc ctgcggcgc 3250
atctcccagg tgtcctcggg agagacggaa tacaacccta ctgaggcgcg 3300
ctgaacctgg ccagtcgggc tgctcggggc ccgccccgg caggcctggc 3350

ccgggaggcc ccgcccagaa gtcggcgga acaccccggg gtgggcagcc 3400
caggggggtga gcggggccca ccctgcccag ctcagggatt ggcgggcgat 3450
gttaccacct cagggattgg cgggcggaag tcccgccct cgccggctga 3500
ggggccgccc tgagggccag cactggcgtc t 3531

<210> 33
<211> 1003
<212> PRT
<213> Homo sapiens

<400> 33
Met Ser Gln Phe Glu Met Asp Thr Tyr Ala Lys Ser His Asp Leu
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Met Ser Gly Phe Trp Asn Ala Cys Tyr Asp Met Leu Met Ser Ser
20 25 30
Gly Gln Arg Arg Gln Trp Glu Arg Ala Gln Ser Arg Arg Ala Phe
35 40 45
Gln Glu Leu Val Leu Glu Pro Ala Gln Arg Arg Ala Arg Leu Glu
50 55 60
Gly Leu Arg Tyr Thr Ala Val Leu Lys Gln Gln Ala Thr Gln His
65 70 75
Ser Met Ala Leu Leu His Trp Gly Ala Leu Trp Arg Gln Leu Ala
80 85 90
Ser Pro Cys Gly Ala Trp Ala Leu Arg Asp Thr Pro Ile Pro Arg
95 100 105
Trp Lys Leu Ser Ser Ala Glu Thr Tyr Ser Arg Met Arg Leu Lys
110 115 120
Leu Val Pro Asn His His Phe Asp Pro His Leu Glu Ala Ser Ala
125 130 135
Leu Arg Asp Asn Leu Gly Glu Val Pro Leu Thr Pro Thr Glu Glu
140 145 150
Ala Ser Leu Pro Leu Ala Val Thr Lys Glu Ala Lys Val Ser Thr
155 160 165
Pro Pro Glu Leu Leu Gln Glu Asp Gln Leu Gly Glu Asp Glu Leu
170 175 180
Ala Glu Leu Glu Thr Pro Met Glu Ala Ala Glu Leu Asp Glu Gln
185 190 195
Arg Glu Lys Leu Val Leu Ser Ala Glu Cys Gln Leu Val Thr Val
200 205 210
Val Ala Val Val Pro Gly Leu Leu Glu Val Thr Thr Gln Asn Val
215 220 225

[illegible]

Val Val Leu Pro	515	Pro Trp Ala Ser Ser	520	Pro Glu Asp Phe Ile Gln	525
	530		535		540
Gln His Arg Gln	Ala Leu Glu Ser Glu	Tyr Val Ser Ala His Leu	545	550	555
His Glu Trp Ile	Asp Leu Ile Phe Gly	Tyr Lys Gln Arg Gly Pro	560	565	570
Ala Ala Glu Glu	Ala Leu Asn Val Phe	Tyr Tyr Cys Thr Tyr Glu	575	580	585
Gly Ala Val Asp	Leu Asp His Val Thr	Asp Glu Arg Glu Arg Lys	590	595	600
Ala Leu Glu Gly	Ile Ile Ser Asn Phe	Gly Gln Thr Pro Cys Gln	605	610	615
Leu Leu Lys Glu	Pro His Pro Thr Arg	Leu Ser Ala Glu Glu Ala	620	625	630
Ala His Arg Leu	Ala Arg Leu Asp Thr	Asn Ser Pro Ser Ile Phe	635	640	645
Gln His Leu Asp	Glu Leu Lys Ala Phe	Phe Ala Glu Val Thr Val	650	655	660
Ser Ala Ser Gly	Leu Leu Gly Thr His	Ser Trp Leu Pro Tyr Asp	665	670	675
Arg Asn Ile Ser	Asn Tyr Phe Ser Phe	Ser Lys Asp Pro Thr Met	680	685	690
Gly Ser His Lys	Thr Gln Arg Leu Leu	Ser Gly Pro Trp Val Pro	695	700	705
Gly Ser Gly Val	Ser Gly Gln Ala Leu	Ala Val Ala Pro Asp Gly	710	715	720
Lys Leu Leu Phe	Ser Gly Gly His Trp	Asp Gly Ser Leu Arg Val	725	730	735
Thr Ala Leu Pro	Arg Gly Lys Leu Leu	Ser Gln Leu Ser Cys His	740	745	750
Leu Asp Val Val	Thr Cys Leu Ala Leu	Asp Thr Cys Gly Ile Tyr	755	760	765
Leu Ile Ser Gly	Ser Arg Asp Thr Thr	Cys Met Val Trp Arg Leu	770	775	780
Leu His Gln Gly	Gly Leu Ser Val Gly	Leu Ala Pro Lys Pro Val	785	790	795
Gln Val Leu Tyr	Gly His Gly Ala Ala	Val Ser Cys Val Ala Ile	800	805	810

Ser	Thr	Glu	Leu	Asp	Met	Ala	Val	Ser	Gly	Ser	Glu	Asp	Gly	Thr	
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Val	Ile	Ile	His	Thr	Val	Arg	Arg	Gly	Gln	Phe	Val	Ala	Ala	Leu	
				830					835					840	
Arg	Pro	Leu	Gly	Ala	Thr	Phe	Pro	Gly	Pro	Ile	Phe	His	Leu	Ala	
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Leu	Gly	Ser	Glu	Gly	Gln	Ile	Val	Val	Gln	Ser	Ser	Ala	Trp	Glu	
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Arg	Pro	Gly	Ala	Gln	Val	Thr	Tyr	Ser	Leu	His	Leu	Tyr	Ser	Val	
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Asn	Gly	Lys	Leu	Arg	Ala	Ser	Leu	Pro	Leu	Ala	Glu	Gln	Pro	Thr	
				890					895					900	
Ala	Leu	Thr	Val	Thr	Glu	Asp	Phe	Val	Leu	Leu	Gly	Thr	Ala	Gln	
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Cys	Ala	Leu	His	Ile	Leu	Gln	Leu	Asn	Thr	Leu	Leu	Pro	Ala	Ala	
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Pro	Pro	Leu	Pro	Met	Lys	Val	Ala	Ile	Arg	Ser	Val	Ala	Val	Thr	
				935					940					945	
Lys	Glu	Arg	Ser	His	Val	Leu	Val	Gly	Leu	Glu	Asp	Gly	Lys	Leu	
				950					955					960	
Ile	Val	Val	Val	Ala	Gly	Gln	Pro	Ser	Glu	Val	Arg	Ser	Ser	Gln	
				965					970					975	
Phe	Ala	Arg	Lys	Leu	Trp	Arg	Ser	Ser	Arg	Arg	Ile	Ser	Gln	Val	
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 <213> Artificial Sequence

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 <223> Synthetic oligonucleotide probe

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<210> 35
 <211> 1395
 <212> DNA
 <213> Homo sapiens

<400> 35
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[illegible]

<210> 36

<211> 321

<212> PRT

<213> Homo sapiens

<400> 36

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				20					25					30
Pro	Gly	Leu	Met	Cys	Val	Phe	Gln	Gly	Tyr	Ser	Ser	Lys	Gly	Leu
				35					40					45
Ile	Gln	Arg	Ser	Val	Phe	Asn	Leu	Gln	Ile	Tyr	Gly	Val	Leu	Gly
				50					55					60
Leu	Phe	Trp	Thr	Leu	Asn	Trp	Val	Leu	Ala	Leu	Gly	Gln	Cys	Val
				65					70					75
Leu	Ala	Gly	Ala	Phe	Ala	Ser	Phe	Tyr	Trp	Ala	Phe	His	Lys	Pro
				80					85					90
Gln	Asp	Ile	Pro	Thr	Phe	Pro	Leu	Ile	Ser	Ala	Phe	Ile	Arg	Thr
				95					100					105
Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile	Leu
				110					115					120
Thr	Leu	Val	Gln	Ile	Ala	Arg	Val	Ile	Leu	Glu	Tyr	Ile	Asp	His
				125					130					135
Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys
				140					145					150
Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe
				155					160					165
Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn
				170					175					180
Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn
				185					190					195
Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu
				200					205					210
Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser
				215					220					225
Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe
				230					235					240
Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser
				245					250					255
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe
				260					265					270
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu
				275					280					285

Glu Arg Asn Asn Gly Ser Leu Asp Arg Pro Tyr Tyr Met Ser Lys
 290 295 300

Ser Leu Leu Lys Ile Leu Gly Lys Lys Asn Glu Ala Pro Pro Asp
 305 310 315

Asn Lys Lys Arg Lys Lys
 320

<210> 37
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 37
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<210> 38
 <211> 24
 <212> DNA
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<220>
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<400> 38
 gtctttacc agccccggga tgcg 24

<210> 39
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<400> 39
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<210> 40
 <211> 1365
 <212> DNA
 <213> Homo sapiens

<400> 40
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 gctctgtgtg cgtgcaagat ccttcaggcc ttgttcaggt gtgaccacgt 200
 gcaatatacg ctggttcag tttctgggtg gcaagaactt gaaactgcat 250

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

2. Next, it is essential to gather relevant information and data. This can be done through research, consultation with experts, or by analyzing existing resources.

3. Once the information is gathered, the next step is to analyze it and identify the key factors that influence the outcome. This often involves breaking down the problem into smaller, more manageable parts.

4. After analysis, a plan or strategy should be developed. This plan should outline the steps that need to be taken to solve the problem, taking into account the resources available and the potential challenges.

5. The final step is to implement the plan and monitor the progress. It is important to stay flexible and be prepared to make adjustments as needed, especially if the initial approach is not yielding the desired results.

	320		325		330
Ala Met Asp Ile	Ser Leu Lys Glu Asn	Leu Arg Glu Met Ile	Glu		
	335		340		345
Glu Ser Ala Asn	Lys Phe Gly Met Lys	Asp Met Arg Val Gln	Thr		
	350		355		360
Phe Ser Ile His	Phe Gly Phe Lys His	Lys Phe Leu Ala Ser	Asp		
	365		370		375
Val Val Phe Ala	Thr Met Ser Leu Met	Glu Ser Pro Glu Lys	Asp		
	380		385		390
Gly Ser Gly Thr	Asp His Phe Ile Gln	Ala Leu Asp Ser Leu	Ser		
	395		400		405
Arg Ser Asn Leu	Asp Lys Leu Tyr His	Gly Leu Glu Leu Ala	Lys		
	410		415		420
Lys Gln Leu Arg	Ala Thr Gln Gln Thr	Ile Ala Ser Cys Leu	Cys		
	425		430		435
Thr Asn Leu Val	Ile Ser Gln Gly Pro	Phe Leu Tyr Cys Ser	Leu		
	440		445		450
Met Glu Gly Thr	Pro Asp Val Met Leu	Phe Ser Arg Pro Ala	Ser		
	455		460		465
Leu Ser Leu Leu	Ser Lys His Leu Leu	Lys Ser Phe Val Cys	Ser		
	470		475		480
Thr Lys Asn Arg	Arg Cys Lys Leu Leu	Pro Leu Val Met Ala	Ala		
	485		490		495
Pro Leu Ser Met	Glu His Gly Thr Val	Thr Val Val Gly Ile	Pro		
	500		505		510
Pro Glu Thr Asp	Ser Ser Asp Arg Lys	Asn Phe Phe Gly Arg	Ala		
	515		520		525
Phe Glu Lys Ala	Ala Glu Ser Thr Ser	Ser Arg Met Leu His	Asn		
	530		535		540
His Phe Asp Leu	Ser Val Ile Glu Leu	Lys Ala Glu Asp Arg	Ser		
	545		550		555
Lys Phe Leu Asp	Ala Leu Ile Ser Leu	Leu Ser			
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 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 44, 118, 172, 183

<223> unknown base

<400> 42

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ggccttggtc cagtgtgacc angtgcaata tangctgggt ccagtttctg 200
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tattttattc tcataaactg tggagctaata gtagacctat tggatattct 300
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<210> 43

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 43

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<210> 44

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 44

attgacaaca ttgactggcc tatggg 26

<210> 45

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 45

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<210> 46

<211> 3089

<212> DNA

<213> Homo sapiens

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Trp	Asn	Tyr	Lys	Glu	Thr	Tyr	Val	His	Ile	Met	His	Asn	Gln	Lys
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Glu	Ala	Val	Ile	Leu	Tyr	Ala	Gln	Pro	Ser	Glu	Arg	Ser	Ile	Met
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Gln	Ser	Gln	Ser	Val	Met	Leu	Asp	Leu	Ala	Tyr	Gly	Asp	Arg	Val
				215					220					225
Trp	Val	Arg	Leu	Phe	Lys	Arg	Gln	Arg	Glu	Asn	Ala	Ile	Tyr	Ser
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 <223> Synthetic oligonucleotide probe

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<210> 51

<211> 2768
 <212> DNA
 <213> Homo sapiens

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 <211> 673
 <212> PRT
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 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu
 95 100 105
 Asp Leu Thr Ala Asn Arg Leu His Glu Ile Thr Asn Glu Thr Phe
 110 115 120
 Arg Gly Leu Arg Arg Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg
 125 130 135
 Ile Arg His Ile Gln Pro Gly Ala Phe Asp Thr Leu Asp Arg Leu
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 Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro
 155 160 165
 Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
 170 175 180
 Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu
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 200 205 210
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 Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly
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Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg
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Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val
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Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Leu	Glu	Gly	Val	Lys	Val	Pro
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Leu	Glu	Pro	Gly	Pro	Lys	Ala	Thr	Glu	Gly	Gly	Gly	Glu	Ala	Leu
				635					640					645
Pro	Ser	Gly	Ser	Glu	Cys	Glu	Val	Pro	Leu	Met	Gly	Phe	Pro	Gly
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<210> 56

102290-2567650

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<211> 811

<212> PRT

<213> Homo sapiens

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				20					25					30
Met	Thr	Asn	Cys	Ser	Asn	Met	Ser	Leu	Arg	Lys	Val	Pro	Ala	Asp
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Leu	Thr	Pro	Ala	Thr	Thr	Thr	Leu	Asp	Leu	Ser	Tyr	Asn	Leu	Leu
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Phe	Gln	Leu	Gln	Ser	Ser	Asp	Phe	His	Ser	Val	Ser	Lys	Leu	Arg
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Val	Leu	Ile	Leu	Cys	His	Asn	Arg	Ile	Gln	Gln	Leu	Asp	Leu	Lys
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Thr	Phe	Glu	Phe	Asn	Lys	Glu	Leu	Arg	Tyr	Leu	Asp	Leu	Ser	Asn
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Asn	Arg	Leu	Lys	Ser	Val	Thr	Trp	Tyr	Leu	Leu	Ala	Gly	Leu	Arg
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Tyr	Leu	Asp	Leu	Ser	Phe	Asn	Asp	Phe	Asp	Thr	Met	Pro	Ile	Cys
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Glu	Glu	Ala	Gly	Asn	Met	Ser	His	Leu	Glu	Ile	Leu	Gly	Leu	Ser
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Gly	Ala	Lys	Ile	Gln	Lys	Ser	Asp	Phe	Gln	Lys	Ile	Ala	His	Leu
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His	Leu	Asn	Thr	Val	Phe	Leu	Gly	Phe	Arg	Thr	Leu	Pro	His	Tyr
				170					175					180
Glu	Glu	Gly	Ser	Leu	Pro	Ile	Leu	Asn	Thr	Thr	Lys	Leu	His	Ile
				185					190					195
Val	Leu	Pro	Met	Asp	Thr	Asn	Phe	Trp	Val	Leu	Leu	Arg	Asp	Gly
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Ile	Lys	Thr	Ser	Lys	Ile	Leu	Glu	Met	Thr	Asn	Ile	Asp	Gly	Lys
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Ser	Gln	Phe	Val	Ser	Tyr	Glu	Met	Gln	Arg	Asn	Leu	Ser	Leu	Glu
				230					235					240
Asn	Ala	Lys	Thr	Ser	Val	Leu	Leu	Leu	Asn	Lys	Val	Asp	Leu	Leu
				245					250					255
Trp	Asp	Asp	Leu	Phe	Leu	Ile	Leu	Gln	Phe	Val	Trp	His	Thr	Ser
				260					265					270
Val	Glu	His	Phe	Gln	Ile	Arg	Asn	Val	Thr	Phe	Gly	Gly	Lys	Ala
				275					280					285
Tyr	Leu	Asp	His	Asn	Ser	Phe	Asp	Tyr	Ser	Asn	Thr	Val	Met	Arg
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Thr	Ile	Lys	Leu	Glu	His	Val	His	Phe	Arg	Val	Phe	Tyr	Ile	Gln
				305					310					315
Gln	Asp	Lys	Ile	Tyr	Leu	Leu	Leu	Thr	Lys	Met	Asp	Ile	Glu	Asn
				320					325					330
Leu	Thr	Ile	Ser	Asn	Ala	Gln	Met	Pro	His	Met	Leu	Phe	Pro	Asn
				335					340					345
Tyr	Pro	Thr	Lys	Phe	Gln	Tyr	Leu	Asn	Phe	Ala	Asn	Asn	Ile	Leu
				350					355					360
Thr	Asp	Glu	Leu	Phe	Lys	Arg	Thr	Ile	Gln	Leu	Pro	His	Leu	Lys
				365					370					375
Thr	Leu	Ile	Leu	Asn	Gly	Asn	Lys	Leu	Glu	Thr	Leu	Ser	Leu	Val
				380					385					390
Ser	Cys	Phe	Ala	Asn	Asn	Thr	Pro	Leu	Glu	His	Leu	Asp	Leu	Ser
				395					400					405
Gln	Asn	Leu	Leu	Gln	His	Lys	Asn	Asp	Glu	Asn	Cys	Ser	Trp	Pro

				410					415					420
Glu	Thr	Val	Val	Asn 425	Met	Asn	Leu	Ser	Tyr 430	Asn	Lys	Leu	Ser	Asp 435
Ser	Val	Phe	Arg	Cys 440	Leu	Pro	Lys	Ser	Ile 445	Gln	Ile	Leu	Asp	Leu 450
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Gly	Ser	Ile	Leu	Ile 665	Cys	Leu	Tyr	Glu	Ser 670	Tyr	Phe	Asp	Pro	Gly 675
Lys	Ser	Ile	Ser	Glu 680	Asn	Ile	Val	Ser	Phe 685	Ile	Glu	Lys	Ser	Tyr 690
Lys	Ser	Ile	Phe	Val 695	Leu	Ser	Pro	Asn	Phe 700	Val	Gln	Asn	Glu	Trp 705

Cys	His	Tyr	Glu	Phe	Tyr	Phe	Ala	His	His	Asn	Leu	Phe	His	Glu	710	715	720
Asn	Ser	Asp	His	Ile	Ile	Leu	Ile	Leu	Leu	Glu	Pro	Ile	Pro	Phe	725	730	735
Tyr	Cys	Ile	Pro	Thr	Arg	Tyr	His	Lys	Leu	Lys	Ala	Leu	Leu	Glu	740	745	750
Lys	Lys	Ala	Tyr	Leu	Glu	Trp	Pro	Lys	Asp	Arg	Arg	Lys	Cys	Gly	755	760	765
Leu	Phe	Trp	Ala	Asn	Leu	Arg	Ala	Ala	Ile	Asn	Val	Asn	Val	Leu	770	775	780
Ala	Thr	Arg	Glu	Met	Tyr	Glu	Leu	Gln	Thr	Phe	Thr	Glu	Leu	Asn	785	790	795
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 <223> Synthetic oligonucleotide probe

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<210> 59
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<210> 60
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<210> 61

<211> 3772
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 62
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 Glu Asp Pro Asp Tyr Tyr Gly Gln Glu Ile Trp Ser Arg Glu Pro
 35 40 45
 Tyr Tyr Ala Arg Pro Glu Pro Glu Leu Glu Thr Phe Ser Pro Pro
 50 55 60

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Pro	Arg	Pro	Pro	Lys	Arg	Ala	Thr	Lys	Pro	Lys	Lys	Ala	Pro	Lys	80	85	90
Arg	Glu	Lys	Ser	Ala	Pro	Glu	Pro	Pro	Pro	Pro	Gly	Lys	His	Ser	95	100	105
Asn	Lys	Lys	Val	Met	Arg	Thr	Lys	Ser	Ser	Glu	Lys	Ala	Ala	Asn	110	115	120
Asp	Asp	His	Ser	Val	Arg	Val	Ala	Arg	Glu	Asp	Val	Arg	Glu	Ser	125	130	135
Cys	Pro	Pro	Leu	Gly	Leu	Glu	Thr	Leu	Lys	Ile	Thr	Asp	Phe	Gln	140	145	150
Leu	His	Ala	Ser	Thr	Val	Lys	Arg	Tyr	Gly	Leu	Gly	Ala	His	Arg	155	160	165
Gly	Arg	Leu	Asn	Ile	Gln	Ala	Gly	Ile	Asn	Glu	Asn	Asp	Phe	Tyr	170	175	180
Asp	Gly	Ala	Trp	Cys	Ala	Gly	Arg	Asn	Asp	Leu	Gln	Gln	Trp	Ile	185	190	195
Glu	Val	Asp	Ala	Arg	Arg	Leu	Thr	Arg	Phe	Thr	Gly	Val	Ile	Thr	200	205	210
Gln	Gly	Arg	Asn	Ser	Leu	Trp	Leu	Ser	Asp	Trp	Val	Thr	Ser	Tyr	215	220	225
Lys	Val	Met	Val	Ser	Asn	Asp	Ser	His	Thr	Trp	Val	Thr	Val	Lys	230	235	240
Asn	Gly	Ser	Gly	Asp	Met	Ile	Phe	Glu	Gly	Asn	Ser	Glu	Lys	Glu	245	250	255
Ile	Pro	Val	Leu	Asn	Glu	Leu	Pro	Val	Pro	Met	Val	Ala	Arg	Tyr	260	265	270
Ile	Arg	Ile	Asn	Pro	Gln	Ser	Trp	Phe	Asp	Asn	Gly	Ser	Ile	Cys	275	280	285
Met	Arg	Met	Glu	Ile	Leu	Gly	Cys	Pro	Leu	Pro	Asp	Pro	Asn	Asn	290	295	300
Tyr	Tyr	His	Arg	Arg	Asn	Glu	Met	Thr	Thr	Thr	Asp	Asp	Leu	Asp	305	310	315
Phe	Lys	His	His	Asn	Tyr	Lys	Glu	Met	Arg	Gln	Leu	Met	Lys	Val	320	325	330
Val	Asn	Glu	Met	Cys	Pro	Asn	Ile	Thr	Arg	Ile	Tyr	Asn	Ile	Gly	335	340	345
Lys	Ser	His	Gln	Gly	Leu	Lys	Leu	Tyr	Ala	Val	Glu	Ile	Ser	Asp			

Gly	Leu	Val	Arg	Asp	Ser	His	Gly	Lys	Gly	Ile	Pro	Asn	Ala	Ile	
				650					655					660	
Ile	Ser	Val	Glu	Gly	Ile	Asn	His	Asp	Ile	Arg	Thr	Ala	Asn	Asp	
				665					670					675	
Gly	Asp	Tyr	Trp	Arg	Leu	Leu	Asn	Pro	Gly	Glu	Tyr	Val	Val	Thr	
				680					685					690	
Ala	Lys	Ala	Glu	Gly	Phe	Thr	Ala	Ser	Thr	Lys	Asn	Cys	Met	Val	
				695					700					705	
Gly	Tyr	Asp	Met	Gly	Ala	Thr	Arg	Cys	Asp	Phe	Thr	Leu	Ser	Lys	
				710					715					720	
Thr	Asn	Met	Ala	Arg	Ile	Arg	Glu	Ile	Met	Glu	Lys	Phe	Gly	Lys	
				725					730					735	
Gln	Pro	Val	Ser	Leu	Pro	Ala	Arg	Arg	Leu	Lys	Leu	Arg	Gly	Arg	
				740					745					750	
Lys	Arg	Arg	Gln	Arg	Gly										
				755											

<210> 63
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 63
 gttctcaatg agctacccgt cccc 24

<210> 64
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 64
 cgcgatgtag tggaactcgg gctc 24

<210> 65
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 65
 atccgcataa accctcagtc ctgggttgat aatgggagca tctgcatgag 50

<210> 66

<211> 2854
 <212> DNA
 <213> Homo sapiens

<400> 66
 ctaagaggac aagatgaggc ccggcctctc atttctccta gcccttctgt 50
 tcttccttgg ccaagctgca ggggatttgg gggatgtggg acctccaatt 100
 cccagccccg gcttcagctc tttcccaggt gttgactcca gctccagctt 150
 cagctccagc tccaggtcgg gctccagctc cagccgcagc ttaggcagcg 200
 gaggttctgt gtcccagttg ttttccaatt tcaccggctc cgtggatgac 250
 cgtgggacct gccagtgtc tgtttccctg ccagacacca cttttcccg 300
 ggacagagtg gaacgcttgg aattcacagc tcatgttctt tctcagaagt 350
 ttgagaaaga acttttctaa gtgagggaa atgtccaatt aattagtgtg 400
 tatgaaaaga aactgttaaa cctaactgtc cgaattgaca tcatggagaa 450
 ggataccatt tcttacactg aactggactt cgagctgac aaggtagaag 500
 tgaaggagat ggaaaaactg gtcatacagc tgaaggagag ttttgggtga 550
 agctcagaaa ttgttgacca gctggaggtg gagataagaa atatgactct 600
 cttggtagag aagcttgaga cactagacaa aaacaatgtc cttgccattc 650
 gccgagaaat cgtggctctg aagaccaagc tgaaagagtg tgaggcctct 700
 aaagatcaaa acaccctgt cgtccacct cctccactc cagggagctg 750
 tggatcatgg ggtgtggtga acatcagcaa accgtctgtg gttcagctca 800
 actggagagg gttttcttat ctatatggtg cttggggtag ggattactct 850
 ccccagcatc caaacaagg actgtattgg gtggcgccat tgaatacaga 900
 tgggagactg ttggagtatt atagactgta caacacactg gatgatttgc 950
 tattgtatat aaatgctcga gagttgcgga tcacctatgg ccaaggtagt 1000
 ggtacagcag ttacaacaa caacatgtac gtcaacatgt acaacaccgg 1050
 gaatattgcc agagttaacc tgaccaccaa cacgattgct gtgactcaaa 1100
 ctctccctaa tgctgcctat aataaccgct tttcatatgc taatgttgc 1150
 tggcaagata ttgactttgc tgtggatgag aatggattgt gggttattta 1200
 ttcaactgaa gccagactg gtaacatggg gattagtaaa ctcaatgaca 1250
 ccacacttca ggtgctaaac acttgggtata ccaagcagta taaaccatct 1300
 gcttctaacg cttcatggg atgtgggggt ctgtatgcca cccgtactat 1350

gaacaccaga acagaagaga ttttttacta ttatgacaca aacacagggg 1400
 aagaggggcaa actagacatt gtaatgcata agatgcagga aaaagtgcag 1450
 agcattaact ataacccttt tgaccagaaa ctttatgtct ataacgatgg 1500
 ttaccttctg aattatgatc tttctgtctt gcagaagccc cagtaagctg 1550
 tttaggagtt aggggtgaaag agaaaatggt tgttgaaaaa atagtcttct 1600
 ccacttactt agatatctgc aggggtgtct aaaagtgtgt tcattttgca 1650
 gcaatgttta ggtgcatagt tctaccacac tagagatcta ggacatttgt 1700
 cttgatttgg tgagttctct tgggaatcat ctgcctcttc aggcgcattt 1750
 tgcaataaag tctgtctagg gtgggattgt cagaggtcta ggggcactgt 1800
 gggcctagtg aagcctactg tgaggaggct tcactagaag ccttaaatta 1850
 ggaattaagg aacttaaaac tcagtatggc gtctagggat tctttgtaca 1900
 ggaaatattg cccaatgact agtcctcacc catgtagcac cactaattct 1950
 tccatgcctg gaagaaacct ggggacttag ttaggtagat taatatctgg 2000
 agctcctcga gggaccaaact ctccaacttt tttttccct cactagcacc 2050
 tggaatgatg ctttgtatgt ggcagataag taaatttggc atgcttatat 2100
 attctacacc tgtaaagtgc tgagttttat ggagagaggc ctttttatgc 2150
 attaaattgt acatggcaaa taaatcccag aaggatctgt agatgaggca 2200
 cctgcttttt cttttctctc attgtccacc ttactaaaag tcagtagaat 2250
 cttctacctc ataacttcct tccaaaggca gctcagaaga ttagaaccag 2300
 acttactaac caattccacc cccaccaaac ccccttctac tgcctacttt 2350
 aaaaaaatta atagttttct atggaaactga tctaagatta gaaaaattaa 2400
 ttttctttaa tttcattatg gacttttatt tacatgactc taagactata 2450
 agaaaatctg atggcagtga caaagtgcta gcatttattg ttatctaata 2500
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 aatttttggc tttgtttaag cctggaactt gtaagaaaat gaaaatttaa 2600
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 atcagtgcag tagttggaaa ccttgctggg gtatgtgatg tgcttctgtg 2700
 cttttgaatg actttatcat ctagtctttg tctatttttc ctttgatgtt 2750
 caagtcctag tctataggat tggcagttta aatgctttac tccccctttt 2800

aaaataaatg attaaaaatgt gctttgaaaa aaaaaaaaaa aaaaaaaaaa 2850

aaaa 2854

<210> 67

<211> 510

<212> PRT

<213> Homo sapiens

<400> 67

Met	Arg	Pro	Gly	Leu	Ser	Phe	Leu	Leu	Ala	Leu	Leu	Phe	Phe	Leu
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Gly	Gln	Ala	Ala	Gly	Asp	Leu	Gly	Asp	Val	Gly	Pro	Pro	Ile	Pro
				20					25					30
Ser	Pro	Gly	Phe	Ser	Ser	Phe	Pro	Gly	Val	Asp	Ser	Ser	Ser	Ser
				35					40					45
Phe	Ser	Ser	Ser	Ser	Arg	Ser	Gly	Ser	Ser	Ser	Ser	Arg	Ser	Leu
				50					55					60
Gly	Ser	Gly	Gly	Ser	Val	Ser	Gln	Leu	Phe	Ser	Asn	Phe	Thr	Gly
				65					70					75
Ser	Val	Asp	Asp	Arg	Gly	Thr	Cys	Gln	Cys	Ser	Val	Ser	Leu	Pro
				80					85					90
Asp	Thr	Thr	Phe	Pro	Val	Asp	Arg	Val	Glu	Arg	Leu	Glu	Phe	Thr
				95					100					105
Ala	His	Val	Leu	Ser	Gln	Lys	Phe	Glu	Lys	Glu	Leu	Ser	Lys	Val
				110					115					120
Arg	Glu	Tyr	Val	Gln	Leu	Ile	Ser	Val	Tyr	Glu	Lys	Lys	Leu	Leu
				125					130					135
Asn	Leu	Thr	Val	Arg	Ile	Asp	Ile	Met	Glu	Lys	Asp	Thr	Ile	Ser
				140					145					150
Tyr	Thr	Glu	Leu	Asp	Phe	Glu	Leu	Ile	Lys	Val	Glu	Val	Lys	Glu
				155					160					165
Met	Glu	Lys	Leu	Val	Ile	Gln	Leu	Lys	Glu	Ser	Phe	Gly	Gly	Ser
				170					175					180
Ser	Glu	Ile	Val	Asp	Gln	Leu	Glu	Val	Glu	Ile	Arg	Asn	Met	Thr
				185					190					195
Leu	Leu	Val	Glu	Lys	Leu	Glu	Thr	Leu	Asp	Lys	Asn	Asn	Val	Leu
				200					205					210
Ala	Ile	Arg	Arg	Glu	Ile	Val	Ala	Leu	Lys	Thr	Lys	Leu	Lys	Glu
				215					220					225
Cys	Glu	Ala	Ser	Lys	Asp	Gln	Asn	Thr	Pro	Val	Val	His	Pro	Pro
				230					235					240

<220>
 <221> unsure
 <222> 206, 217, 387
 <223> unknown base

 <400> 68
 gctctgaaga ccaagctgaa agagtgtgag gcctctaaag atcaaacacc 50

 cctgtcgtcc accctcctcc cactccaggg agctgtgggc atggtggtgt 100

 ggtgaacatc agcaaaccgt ctgtggttca gctcaactgg agagggtttt 150

 cttatctata tgggtgcttg ggtagggatt actctcccca gcatccaaac 200

 aaagggnatgt attggngggc gccattgaat acagatggga gactggttga 250

 gtattataga ctgtacaacc cactggatga tttgctattg tatataaatg 300

 ctcgagagtt gcggatcacc tatggccaag gtagtggtac agcagtttac 350

 aacaacaaca tgtacgtcaa catgtacaac accgggnata ttgccagagt 400

 taacctgacc 410

<210> 69
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 69
 agctgtgggc atggtggtgt ggtg 24

<210> 70
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 70
 ctaccttggc cataggtgat ccgc 24

<210> 71
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 71
 catcagcaaa ccgtctgtgg ttcagctcaa ctggagaggg tt 42

<210> 72

<211> 3127
 <212> DNA
 <213> Homo sapiens

<400> 72
 tctcgcagat agtaaataat ctccgaaagg cgagaaagaa gctgtctcca 50
 tcttgtctgt atccgctgct cttgtgacgt tgtggagatg gggagcgtcc 100
 tggggctgtg ctccatggcg agctggatac catgtttgtg tggaagtgcc 150
 ccgtgtttgc tatgccgatg ctgtcctagt ggaaacaact ccactgtaac 200
 tagattgatc tatgcacttt tcttgcttgt tggagtatgt gtagcttgtg 250
 taatgttgat accaggaatg gaagaacaac tgaataagat tcctggattt 300
 tgtgagaatg agaaagggtg tgtcccttgt aacattttgg ttggctataa 350
 agctgtatat cgtttgtgct ttggtttggc tatgttctat cttcttctct 400
 ctttactaat gatcaaagtg aagagtagca gtgacccatg agctgcagtg 450
 cacaatggat tttggttctt taaatttget gcagcaattg caattattat 500
 tggggcattc ttcattccag aaggaacttt tacaactgtg tggttttatg 550
 taggcattggc aggtgccttt tgtttcatcc tcatacaact agtcttactt 600
 attgattttg cacattcatg gaatgaatcg tggggtgaaa aaatggaaga 650
 agggaaactc agatgttggg atgcagcctt gttatcagct acagctctga 700
 attatctgct gtcttttagt gctatcgctc tgttctttgt ctactacact 750
 catccagcca gttgttcaga aaacaaggcg ttcattcagt tcaacatgct 800
 cctctgcgtt ggtgcttctg taatgtctat actgccaaaa atccaagaat 850
 cacaaccaag atctggtttg ttacagtctt cagtaattac agtctacaca 900
 atgtatttga catggtcagc tatgaccaat gaaccagaaa caaattgcaa 950
 cccaagtcta ctaagcataa ttggctacaa tacaacaagc actgtcccaa 1000
 aggaagggca gtcagtccag tgggtggcatg ctcaaggaat tataggacta 1050
 attctctttt tgttgtgtgt attttattcc agcatccgta cttcaaacia 1100
 tagtcagggt aataaactga ctctaacaag tgatgaatct acattaatag 1150
 aagatggtgg agctagaagt gatggatcac tggaggatgg ggacgatgtt 1200
 caccgagctg tagataatga aagggatggg gtcacttaca gttattcctt 1250
 ctttcacttc atgcttttcc tggcttcact ttatatcatg atgaccctta 1300
 ccaactggtc caggtatgaa ccctctcgtg agatgaaaag tcagtggaca 1350

gctgtctggg tgaaaatctc ttccagttgg attggcatcg tgctgtatgt 1400
 ttggacactc gtggcaccac ttgttcttac aaatcgtgat tttgactgag 1450
 tgagacttct agcatgaaag tcccactttg attattgctt atttgaaaac 1500
 agtattccca acttttgtaa agttgtgtat gtttttgctt cccatgtaac 1550
 ttctccagtg ttctggcatg aattagatgt tactgcttgt cattttgtta 1600
 ttttcttacc aagtgcattg atatgtgaag tagaatgaat tgcagaggaa 1650
 agttttatga atatgggtgat gagttagtaa aagtggccat tattgggctt 1700
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 aaatgtatgg ctgccttttg aaatatgtga tgtgttgcct ggcaggatac 1850
 tgcaaagaac atgggtttatt taaaattta taaacaagtc acttaaatgc 1900
 cagttgtctg aaaaatctta taaggtttta cccttgatac ggaatttaca 1950
 caggtaggga gtgttttagtg gacaatagtg taggttatgg atggaggtgt 2000
 cgggtactaaa ttgaataacg agtaaataat cttacttggg tagagatggc 2050
 ctttgccaac aaagtgaact gttttgggtg ttttaaactc atgaagtatg 2100
 ggttcagtgg aaatgtttgg aactctgaag gatttagaca aggttttgaa 2150
 aaggataatc atgggttaga aggaagtgtt ttgaaagtca ctttgaaagt 2200
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cctgcttata gtatactaca cagttcaaaa gatgtttaaa atgcttttgt 2850
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 gaaaatcaag cagtatgaga gtttagttat ttgtatgtgt cactagtgtc 2950
 taatgaagct tttaaaatct acaatttctt ctttaaaaat atttattaat 3000
 gtgaatggaa tataacaatt cagcttaatt ccccaacctt attctgtgtg 3050
 tagacattgt attccacaat tttgaatggc tgtgttttac ctctaaataa 3100
 atgaattcag agaaaaaaaa aaaaaaa 3127

<210> 73
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 73
 Met Gly Ser Val Leu Gly Leu Cys Ser Met Ala Ser Trp Ile Pro
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 Cys Leu Cys Gly Ser Ala Pro Cys Leu Leu Cys Arg Cys Cys Pro
 20 25 30
 Ser Gly Asn Asn Ser Thr Val Thr Arg Leu Ile Tyr Ala Leu Phe
 35 40 45
 Leu Leu Val Gly Val Cys Val Ala Cys Val Met Leu Ile Pro Gly
 50 55 60
 Met Glu Glu Gln Leu Asn Lys Ile Pro Gly Phe Cys Glu Asn Glu
 65 70 75
 Lys Gly Val Val Pro Cys Asn Ile Leu Val Gly Tyr Lys Ala Val
 80 85 90
 Tyr Arg Leu Cys Phe Gly Leu Ala Met Phe Tyr Leu Leu Leu Ser
 95 100 105
 Leu Leu Met Ile Lys Val Lys Ser Ser Ser Asp Pro Arg Ala Ala
 110 115 120
 Val His Asn Gly Phe Trp Phe Phe Lys Phe Ala Ala Ala Ile Ala
 125 130 135
 Ile Ile Ile Gly Ala Phe Phe Ile Pro Glu Gly Thr Phe Thr Thr
 140 145 150
 Val Trp Phe Tyr Val Gly Met Ala Gly Ala Phe Cys Phe Ile Leu
 155 160 165
 Ile Gln Leu Val Leu Leu Ile Asp Phe Ala His Ser Trp Asn Glu
 170 175 180
 Ser Trp Val Glu Lys Met Glu Glu Gly Asn Ser Arg Cys Trp Tyr
 185 190 195

Ala	Ala	Leu	Leu	Ser	Ala	Thr	Ala	Leu	Asn	Tyr	Leu	Leu	Ser	Leu	200	205	210
Val	Ala	Ile	Val	Leu	Phe	Phe	Val	Tyr	Tyr	Thr	His	Pro	Ala	Ser	215	220	225
Cys	Ser	Glu	Asn	Lys	Ala	Phe	Ile	Ser	Val	Asn	Met	Leu	Leu	Cys	230	235	240
Val	Gly	Ala	Ser	Val	Met	Ser	Ile	Leu	Pro	Lys	Ile	Gln	Glu	Ser	245	250	255
Gln	Pro	Arg	Ser	Gly	Leu	Leu	Gln	Ser	Ser	Val	Ile	Thr	Val	Tyr	260	265	270
Thr	Met	Tyr	Leu	Thr	Trp	Ser	Ala	Met	Thr	Asn	Glu	Pro	Glu	Thr	275	280	285
Asn	Cys	Asn	Pro	Ser	Leu	Leu	Ser	Ile	Ile	Gly	Tyr	Asn	Thr	Thr	290	295	300
Ser	Thr	Val	Pro	Lys	Glu	Gly	Gln	Ser	Val	Gln	Trp	Trp	His	Ala	305	310	315
Gln	Gly	Ile	Ile	Gly	Leu	Ile	Leu	Phe	Leu	Leu	Cys	Val	Phe	Tyr	320	325	330
Ser	Ser	Ile	Arg	Thr	Ser	Asn	Asn	Ser	Gln	Val	Asn	Lys	Leu	Thr	335	340	345
Leu	Thr	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Glu	Asp	Gly	Gly	Ala	Arg	350	355	360
Ser	Asp	Gly	Ser	Leu	Glu	Asp	Gly	Asp	Asp	Val	His	Arg	Ala	Val	365	370	375
Asp	Asn	Glu	Arg	Asp	Gly	Val	Thr	Tyr	Ser	Tyr	Ser	Phe	Phe	His	380	385	390
Phe	Met	Leu	Phe	Leu	Ala	Ser	Leu	Tyr	Ile	Met	Met	Thr	Leu	Thr	395	400	405
Asn	Trp	Ser	Arg	Tyr	Glu	Pro	Ser	Arg	Glu	Met	Lys	Ser	Gln	Trp	410	415	420
Thr	Ala	Val	Trp	Val	Lys	Ile	Ser	Ser	Ser	Trp	Ile	Gly	Ile	Val	425	430	435
Leu	Tyr	Val	Trp	Thr	Leu	Val	Ala	Pro	Leu	Val	Leu	Thr	Asn	Arg	440	445	450
Asp Phe Asp																	

<210> 74
 <211> 480
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 48, 163
 <223> unknown base

<400> 74
 gcgagaaaga agctgtctcc atcttgtctg tatcccgtg cttcttnga 50
 cggtgtggag atggggagcg tccctggggc tgtgctccat ggcgagctgg 100
 ataccatggt tgtgtggaag tgccccgtgt ttgctatgcc gatgctgtcc 150
 tagtggaac aantccactg taactagatt gatctatgca cttttcttgc 200
 ttgttggagt atgtgtagct tgtgtaatgt tgataccagg aatggaagaa 250
 caactgaata agattcctgg attttgtgag aatgagaaag gtgttgtccc 300
 ttgtaacatt ttggttggct ataaagctgt atatcgtttg tgctttggtt 350
 tggtatggt ctatcttctt ctctctttac taatgatcaa agtgaagagt 400
 agcagtgatc ctagagctgc agtgcacaat ggattttggt tctttaaatt 450
 tgctgcagca attgcaatta ttattggggc 480

<210> 75
 <211> 438
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 32, 65, 92, 121, 142, 154, 170, 293, 315, 323
 <223> unknown base

<400> 75
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 cgagctggat accangtttg tgtggaagt ccccggttt gntatgccga 100
 tgctgtccta gtggaacaa ntccactgta attagattga tntatgcact 150
 tttnttgctt gttggagtan gtgtagcttg tgtaatgttg ataccaggaa 200
 tggaagaaca actgaataag attcctggat tttgtgagaa tgagaaaggt 250
 gttgtccctt gtaacatttt gggtggctat aaagctgtat atngtttgtg 300
 ctttggtttg gctangttct atnttcttct ctctttacta atgatcaaag 350
 tgaagagtag cagtgatcct agagctgcag tgcacaatgg attttggttt 400
 tttaaatttg ctgcagcaat tgcaattatt attggggc 438

<210> 76
 <211> 473
 <212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 48

<223> unknown base

<400> 76

aagaagctgt ctccatcttg tctgtatccg ctgctcttgt gaacgttntg 50
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gtttgtgtgg aagtgcctcg tgtttgctat gccgatgctg tcctagtggg 150
aacaactcca ctgtaactag attgatctat gcacttttct tgcttggttg 200
agtatgtgta gcttggtgta tggtgatacc aggaatggaa gaacaactga 250
ataagattcc tggattttgt gagaatgaga aagggtgtgt cccttgtaac 300
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<213> Homo sapiens

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<222> 21, 111

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<400> 77

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<400> 78
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<400> 79
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<210> 80
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<400> 80
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<210> 81
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<220>
 <223> Synthetic oligonucleotide probe

<400> 81
 gagcatgccca ccactggact gac 23

<210> 82
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<223> Synthetic oligonucleotide probe

<400> 82

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<210> 83

<211> 3906

<212> DNA

<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

<400> 84

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				35					40					45	
Ile	Ile	Leu	Val	Leu	Thr	Asp	Asp	Gln	Asp	Val	Glu	Leu	Gly	Ser	
				50					55					60	
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				65					70					75	
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Ser	Arg	Ser	Ser	Ile	Leu	Thr	Gly	Lys	Tyr	Val	His	Asn	His	Asn	
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Thr	Tyr	Thr	Asn	Asn	Glu	Asn	Cys	Ser	Ser	Pro	Ser	Trp	Gln	Ala	
				110					115					120	
Gln	His	Glu	Ser	Arg	Thr	Phe	Ala	Val	Tyr	Leu	Asn	Ser	Thr	Gly	
				125					130					135	
Tyr	Arg	Thr	Ala	Phe	Phe	Gly	Lys	Tyr	Leu	Asn	Glu	Tyr	Asn	Gly	
				140					145					150	
Ser	Tyr	Val	Pro	Pro	Gly	Trp	Lys	Glu	Trp	Val	Gly	Leu	Leu	Lys	
				155					160					165	
Asn	Ser	Arg	Phe	Tyr	Asn	Tyr	Thr	Leu	Cys	Arg	Asn	Gly	Val	Lys	
				170					175					180	
Glu	Lys	His	Gly	Ser	Asp	Tyr	Ser	Lys	Asp	Tyr	Leu	Thr	Asp	Leu	
				185					190					195	
Ile	Thr	Asn	Asp	Ser	Val	Ser	Phe	Phe	Arg	Thr	Ser	Lys	Lys	Met	
				200					205					210	
Tyr	Pro	His	Arg	Pro	Val	Leu	Met	Val	Ile	Ser	His	Ala	Ala	Pro	
				215					220					225	
His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Tyr	Ser	Arg	Leu	Phe	Pro	
				230					235					240	
Asn	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	
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Pro	Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro	
				260					265					270	
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 86
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<220>
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<400> 86
ggccagctat ctccgcag 18

<210> 87
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<212> DNA
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<220>
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<400> 87
aagggcctgc aagagaag 18

<210> 88
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<220>
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<400> 88
cactgggaca actgtggg 18

<210> 89
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<220>
<223> Synthetic oligonucleotide probe

<400> 89
cagaggcaac gtggagag 18

<210> 90
<211> 21
<212> DNA

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 ccctgagaat gtccttttgg tttggagaag gcagtgtgag gctgcacagt 900
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 aaaaaaaaaa aaaaaaaaaa a 971

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 95

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Gly	Ala	Ala	Val	Ala	Val	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Ala	Thr
			20						25					30
Cys	Leu	Phe	His	Gly	Arg	Gln	Asp	Cys	Asp	Val	Glu	Arg	Asn	Arg
			35						40					45
Thr	Ala	Ala	Gly	Gly	Asn	Arg	Val	Arg	Arg	Ala	Gln	Pro	Trp	Pro
			50						55					60
Phe	Arg	Arg	Arg	Gly	His	Leu	Gly	Ile	Phe	His	His	His	Arg	His
			65						70					75
Pro	Gly	His	Val	Ser	His	Val	Pro	Asn	Val	Gly	Leu	His	His	His
			80						85					90
His	His	Pro	Arg	His	Thr	Pro	His	His	Leu	His	His	His	His	His
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Pro	His	Arg	His	His	Pro	Arg	His	Ala	Arg					
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 <212> DNA
 <213> Homo sapiens

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<210> 97

<211> 313

<212> PRT

<213> Homo sapiens

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				20					25					30	
Leu	Ala	Gly	Val	Glu	Val	Ser	Ala	Gly	Ser	Pro	Pro	Ile	Arg	Asn	
				35					40					45	
Val	Thr	Val	Ala	Tyr	Lys	Phe	His	Met	Gly	Leu	Tyr	Gly	Glu	Thr	
				50					55					60	
Gly	Arg	Leu	Phe	Thr	Glu	Ser	Cys	Ser	Ile	Ser	Pro	Lys	Leu	Arg	
				65					70					75	
Ser	Ile	Ala	Val	Tyr	Tyr	Asp	Asn	Pro	His	Met	Val	Pro	Pro	Asp	
				80					85					90	
Lys	Cys	Arg	Cys	Ala	Val	Gly	Ser	Ile	Leu	Ser	Glu	Gly	Glu	Glu	
				95					100					105	
Ser	Pro	Ser	Pro	Glu	Leu	Ile	Asp	Leu	Tyr	Gln	Lys	Phe	Gly	Phe	
				110					115					120	
Lys	Val	Phe	Ser	Phe	Pro	Ala	Pro	Ser	His	Val	Val	Thr	Ala	Thr	
				125					130					135	
Phe	Pro	Tyr	Thr	Thr	Ile	Leu	Ser	Ile	Trp	Leu	Ala	Thr	Arg	Arg	
				140					145					150	
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Ala	Tyr	Pro	Arg	Leu	Glu	Ile	Tyr	Gln	Glu	Asp	Gln	Ile	His	Phe	
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Met	Cys	Pro	Leu	Ala	Arg	Gln	Gly	Asp	Phe	Tyr	Val	Pro	Glu	Met	
				185					190					195	
Lys	Glu	Thr	Glu	Trp	Lys	Trp	Arg	Gly	Leu	Val	Glu	Ala	Ile	Asp	
				200					205					210	
Thr	Gln	Val	Asp	Gly	Thr	Gly	Ala	Asp	Thr	Met	Ser	Asp	Thr	Ser	
				215					220					225	
Ser	Val	Ser	Leu	Glu	Val	Ser	Pro	Gly	Ser	Arg	Glu	Thr	Ser	Ala	
				230					235					240	
Ala	Thr	Leu	Ser	Pro	Gly	Ala	Ser	Ser	Arg	Gly	Trp	Asp	Asp	Gly	
				245					250					255	

Asp	Thr	Arg	Ser	Glu	His	Ser	Tyr	Ser	Glu	Ser	Gly	Ala	Ser	Gly
				260					265					270
Ser	Ser	Phe	Glu	Glu	Leu	Asp	Leu	Glu	Gly	Glu	Gly	Pro	Leu	Gly
			275						280					285
Glu	Ser	Arg	Leu	Asp	Pro	Gly	Thr	Glu	Pro	Leu	Gly	Thr	Thr	Lys
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Trp	Leu	Trp	Glu	Pro	Thr	Ala	Pro	Glu	Lys	Gly	Lys	Glu		
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 <212> DNA
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<210> 99
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 99
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Thr Glu Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu	35	40	45
Pro Pro Glu Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu	50	55	60
His Ile His Tyr Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp	65	70	75
Thr Ser Leu Thr Arg Asp Pro Leu Val Ile Glu Leu Gly Gln Lys	80	85	90
Gln Val Ile Pro Gly Leu Glu Gln Ser Leu Leu Asp Met Cys Val	95	100	105
Gly Glu Lys Arg Arg Ala Ile Ile Pro Ser His Leu Ala Tyr Gly	110	115	120
Lys Arg Gly Phe Pro Pro Ser Val Pro Ala Asp Ala Val Val Gln	125	130	135
Tyr Asp Val Glu Leu Ile Ala Leu Ile Arg Ala Asn Tyr Trp Leu	140	145	150
Lys Leu Val Lys Gly Ile Leu Pro Leu Val Gly Met Ala Met Val	155	160	165
Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu Tyr Arg Lys Ala	170	175	180
Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu Glu Lys Arg	185	190	195
Asn Lys Ser Lys Lys Lys	200		

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 <212> DNA
 <213> Homo sapiens

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 gaggtggggc tcgaaaccga aagtcccgtc cggaccctcc aagtggagac 200
 cctggtggag cccccagaac catgtgccga gcccgctgct tttggagaca 250
 cgcttcacat aactacacg ggaagcttgg tagatggacg tattattgac 300
 acctccctga ccagagaccc tctggttata gaacttggcc aaaagcaggt 350

gattccaggt ctggagcaga gtcttctcga catgtgtgtg ggagagaagc 400
gaagggaat cattccttct cacttggcct atggaaaacg gggatttcca 450
ccatctgtcc cagcggatgc agtgggtgcag tatgacgtgg agctgattgc 500
actaatccga gccaaactact ggctaaagct ggtgaagggc attttgctc 550
tggtagggat ggccatggtg ccaccctcct gggcctcatt gggatcacc 600
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gagaaacgaa acaagagcaa aaagaaataa taaataataa attttaaaaa 700
actta 705

<210> 101
<211> 543
<212> DNA
<213> Homo sapiens

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cacgggaagc ttggtagatg gacgtattat tgacacctcc ctgaccagag 150
accctctggt tatagaactt ggccaaaagc aggtgattcc aggtctggag 200
cagagtcttc tcgacatgtg tgtgggagag aagcgaaggg caatcattcc 250
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atgcagtggg gcagtatgac gtggagctga ttgcactaat ccgagccaac 350
tactggctaa agctggtgaa gggcattttg cctctggtag ggatggccat 400
ggtgccagcc ctctggggc tcattgggta tcacctatac agaaaggcca 450
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agcaaaaaga aataataaat aataaatttt aaaaaactta aaa 543

<210> 102
<211> 1316
<212> DNA
<213> Homo sapiens

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ccactgcacg acggggctgg actgacctga aaaaaatgtc tggatttcta 150
gagggttga gatgctcaga atgcattgac tggggggaaa agcgcaatac 200

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<211> 157
<212> PRT
<213> Homo sapiens

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 35 40 45
 Tyr Pro Thr Met Lys Asp Phe Asn His Ser Tyr His Ala Cys Gly
 50 55 60
 Val Ile Ala Thr Ile Ala Phe Leu Met Ile Asn Ala Val Ser Asn
 65 70 75
 Gly Gln Val Arg Gly Asp Ser Tyr Ser Glu Gly Cys Leu Gly Gln
 80 85 90
 Thr Gly Ala Arg Ile Trp Leu Phe Val Gly Phe Met Leu Ala Phe
 95 100 105
 Gly Ser Leu Ile Ala Ser Met Trp Ile Leu Phe Gly Gly Tyr Val
 110 115 120
 Ala Lys Glu Lys Asp Ile Val Tyr Pro Gly Ile Ala Val Phe Phe
 125 130 135
 Gln Asn Ala Phe Ile Phe Phe Gly Gly Leu Val Phe Lys Phe Gly
 140 145 150
 Arg Thr Glu Asp Leu Trp Gln
 155

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 <211> 545
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 <213> Homo sapiens

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 agcgcaatac tattgcttcc attgctgctg gtgtactatt ttttacaggc 200
 tgggtggatta tcatagatgc agctgttatt tatcccacca tgaaagattt 250
 caaccactca taccatgcct gtggtgttat agcaaccata gccttcctaa 300
 tgattaatgc agtatcgaat ggacaagtcc gaggtgatag ttacagtga 350
 gggtgtctgg gtcaaacagg tgctcgcat tggcttttcg ttggtttcat 400
 gttggccttt ggatctctga ttgcatctat gtggattctt tttggagggt 450
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 cagaatgcct tcatcttttt tggagggtg gtttttaagt ttggc 545

<210> 105
 <211> 490
 <212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 31, 39, 108, 145, 179, 219, 412, 479

<223> unknown base

<400> 105

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<210> 106

<211> 466

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 26, 38, 81, 115, 207, 329, 380, 446, 449

<223> unknown base

<400> 106

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<210> 107
 <211> 377
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 52, 67, 70, 78, 105, 144, 150, 209, 266, 268, 282, 310, 331, 356
 <223> unknown base

<400> 107
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 tcataccatg cctgtggtgt tatagcaacc atagccttcc taatgattaa 200
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 taaagnaaaa gacatagtat accctgt 377

<210> 108
 <211> 552
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 12, 25, 65, 130, 437, 537
 <223> unknown base

<400> 108
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tg 552

<210> 109

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 109

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<210> 110

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 110

tggtgtgctg tgggaaatca gatgtg 26

<210> 111

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 111

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<210> 112

<211> 3004

<212> DNA

<213> Homo sapiens

<400> 112

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<210> 113
 <211> 610
 <212> PRT
 <213> Homo sapiens

<400> 113
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Ala	Cys	Gly	Val	Ser	Val	Lys	Lys	Gly	His	Glu	Leu	Val	Asn	Ile	335	340	345
Tyr	Cys	Pro	Ile	Val	Val	Ser	Asn	Ala	Gly	Leu	Phe	Asn	Thr	Tyr	350	355	360
Glu	His	Leu	Leu	Pro	Gly	Asn	Ala	Arg	Cys	Leu	Pro	Gly	Val	Lys	365	370	375
Gln	Gln	Leu	Gly	Thr	Val	Arg	Pro	Gly	Leu	Gly	Met	Thr	Ser	Val	380	385	390
Phe	Ile	Cys	Leu	Arg	Gly	Thr	Lys	Glu	Asp	Leu	His	Leu	Pro	Ser	395	400	405
Thr	Asn	Tyr	Tyr	Val	Tyr	Tyr	Asp	Thr	Asp	Met	Asp	Gln	Ala	Met	410	415	420
Glu	Arg	Tyr	Val	Ser	Met	Pro	Arg	Glu	Glu	Ala	Ala	Glu	His	Ile	425	430	435
Pro	Leu	Leu	Phe	Phe	Ala	Phe	Pro	Ser	Ala	Lys	Asp	Pro	Thr	Trp	440	445	450
Glu	Asp	Arg	Phe	Pro	Gly	Arg	Ser	Thr	Met	Ile	Met	Leu	Ile	Pro	455	460	465
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Lys	Arg	Gly	Ser	Asp	Tyr	Glu	Thr	Phe	Lys	Asn	Ser	Phe	Val	Glu	485	490	495
Ala	Ser	Met	Ser	Val	Val	Leu	Lys	Leu	Phe	Pro	Gln	Leu	Glu	Gly	500	505	510
Lys	Val	Glu	Ser	Val	Thr	Ala	Gly	Ser	Pro	Leu	Thr	Asn	Gln	Phe	515	520	525
Tyr	Leu	Ala	Ala	Pro	Arg	Gly	Ala	Cys	Tyr	Gly	Ala	Asp	His	Asp	530	535	540
Leu	Gly	Arg	Leu	His	Pro	Cys	Val	Met	Ala	Ser	Leu	Arg	Ala	Gln	545	550	555
Ser	Pro	Ile	Pro	Asn	Leu	Tyr	Leu	Thr	Gly	Gln	Asp	Ile	Phe	Thr	560	565	570
Cys	Gly	Leu	Val	Gly	Ala	Leu	Gln	Gly	Ala	Leu	Leu	Cys	Ser	Ser	575	580	585
Ala	Ile	Leu	Lys	Arg	Asn	Leu	Tyr	Ser	Asp	Leu	Lys	Asn	Leu	Asp	590	595	600
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610

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<210> 114
<211> 1701
<212> DNA
<213> Homo sapiens
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<210> 115
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 115
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 Glu Ser Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val
 35 40 45
 Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe
 50 55 60
 Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu
 65 70 75
 Glu Asp Ser Leu Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp
 80 85 90
 Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu
 95 100 105
 Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly
 110 115 120
 Thr Ala His Gly Glu Pro Cys His Phe Pro Phe Leu Phe Leu Asp
 125 130 135
 Lys Glu Tyr Asp Glu Cys Thr Ser Asp Gly Arg Glu Asp Gly Arg
 140 145 150
 Leu Trp Cys Ala Thr Thr Tyr Asp Tyr Lys Ala Asp Glu Lys Trp
 155 160 165

Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	Arg	Arg	Gln	Met
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Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn
				185					190					195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu
				200					205					210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val
				215					220					225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln
				230					235					240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro
				245					250					255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly
				260					265					270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly
				275					280					285
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg
				290					295					300

Leu

<210> 116
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 116
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 aggggtgggg tgtgagatgg gtgcctcccc tctgcctccc atttctgccc 500
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aaaatgggtt aataatattc aacatgtcaa caac 584

<210> 117

<211> 123

<212> PRT

<213> Homo sapiens

<400> 117

Met Ala Cys Arg Cys Leu Ser Phe Leu Leu Met Gly Thr Phe Leu
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Ser Val Ser Gln Thr Val Leu Ala Gln Leu Asp Ala Leu Leu Val
20 25 30

Phe Pro Gly Gln Val Ala Gln Leu Ser Cys Thr Leu Ser Pro Gln
35 40 45

His Val Thr Ile Arg Asp Tyr Gly Val Ser Trp Tyr Gln Gln Arg
50 55 60

Ala Gly Ser Ala Pro Arg Tyr Leu Leu Tyr Tyr Arg Ser Glu Glu
65 70 75

Asp His His Arg Pro Ala Asp Ile Pro Asp Arg Phe Ser Ala Ala
80 85 90

Lys Asp Glu Ala His Asn Ala Cys Val Leu Thr Ile Ser Pro Val
95 100 105

Gln Pro Glu Asp Asp Ala Asp Tyr Tyr Cys Ser Val Gly Tyr Gly
110 115 120

Phe Ser Pro

<210> 118

<211> 3402

<212> DNA

<213> Homo sapiens

<400> 118

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tgacgccgag cccctgttg ctgctcctgc tgccgccgct gctgctgggg 200

gccttccac cggccgccgc cgcccgaggc ccccaaaga tggcggacaa 250

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gcccagtgga gggggacccg ccgccgctga ccatgtggac caaggatggc 350

cgcaccatcc acagcggctg gagccgttc cgcgtgctgc cgcaggggct 400

gaaggtgaag caggtggagc gggaggatgc cggcgtgtac gtgtgcaagg 450

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aa 3402

<210> 119

<211> 504

<212> PRT

<213> Homo sapiens

<400> 119

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20 25 30

Met Ala Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg
35 40 45

Thr Val Arg Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu
50 55 60

Thr Met Trp Thr Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser
65 70 75

Arg Phe Arg Val Leu Pro Gln Gly Leu Lys Val Lys Gln Val Glu
80 85 90

Arg Glu Asp Ala Gly Val Tyr Val Cys Lys Ala Thr Asn Gly Phe
95 100 105

Gly Ser Leu Ser Val Asn Tyr Thr Leu Val Val Leu Asp Asp Ile
110 115 120

Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly
125 130 135

Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr
140 145 150

Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly
155 160 165

Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
170 175 180

Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu
185 190 195

Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn
200 205 210

Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn
215 220 225

Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln
230 235 240

<220>
 <223> Synthetic oligonucleotide probe

 <400> 120
 cgagatgacg ccgagccccc 20

 <210> 121
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 121
 cggttcgaca cgcggcaggt g 21

 <210> 122
 <211> 45
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 122
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 <210> 123
 <211> 4420
 <212> DNA
 <213> Homo sapiens

 <400> 123
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<210> 124
 <211> 1184
 <212> PRT
 <213> Homo sapiens

<400> 124
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 20 25 30
 Arg Arg Val Gln Pro Gly Lys Lys Asn Pro Ser Ile Phe Ala Lys
 35 40 45
 Pro Ala Asp Thr Leu Glu Ser Pro Gly Glu Trp Thr Thr Trp Phe
 50 55 60
 Asn Ile Asp Tyr Pro Gly Gly Lys Gly Asp Tyr Glu Arg Leu Asp
 65 70 75

	365		370		375
Cys Lys Ala Gln Ser Asp Ala Gly Ala Val Lys Ser Lys Val Ala	380		385		390
Gln Leu Ile Val Thr Ala Ser Asp Glu Thr Pro Cys Asn Pro Val	395		400		405
Pro Glu Ser Tyr Leu Ile Arg Leu Pro His Asp Cys Phe Gln Asn	410		415		420
Ala Thr Asn Ser Phe Tyr Tyr Asp Val Gly Arg Cys Pro Val Lys	425		430		435
Thr Cys Ala Gly Gln Gln Asp Asn Gly Ile Arg Cys Arg Asp Ala	440		445		450
Val Gln Asn Cys Cys Gly Ile Ser Lys Thr Glu Glu Arg Glu Ile	455		460		465
Gln Cys Ser Gly Tyr Thr Leu Pro Thr Lys Val Ala Lys Glu Cys	470		475		480
Ser Cys Gln Arg Cys Thr Glu Thr Arg Ser Ile Val Arg Gly Arg	485		490		495
Val Ser Ala Ala Asp Asn Gly Glu Pro Met Arg Phe Gly His Val	500		505		510
Tyr Met Gly Asn Ser Arg Val Ser Met Thr Gly Tyr Lys Gly Thr	515		520		525
Phe Thr Leu His Val Pro Gln Asp Thr Glu Arg Leu Val Leu Thr	530		535		540
Phe Val Asp Arg Leu Gln Lys Phe Val Asn Thr Thr Lys Val Leu	545		550		555
Pro Phe Asn Lys Lys Gly Ser Ala Val Phe His Glu Ile Lys Met	560		565		570
Leu Arg Arg Lys Glu Pro Ile Thr Leu Glu Ala Met Glu Thr Asn	575		580		585
Ile Ile Pro Leu Gly Glu Val Val Gly Glu Asp Pro Met Ala Glu	590		595		600
Leu Glu Ile Pro Ser Arg Ser Phe Tyr Arg Gln Asn Gly Glu Pro	605		610		615
Tyr Ile Gly Lys Val Lys Ala Ser Val Thr Phe Leu Asp Pro Arg	620		625		630
Asn Ile Ser Thr Ala Thr Ala Ala Gln Thr Asp Leu Asn Phe Ile	635		640		645
Asn Asp Glu Gly Asp Thr Phe Pro Leu Arg Thr Tyr Gly Met Phe	650		655		660

<210> 126
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 126
 ccattgtgca ggtcagggtca cag 23

<210> 127
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 127
 ctggagcaag tgctcagctg cctgtgggtca gactgggggtc 40

<210> 128
 <211> 2819
 <212> DNA
 <213> Homo sapiens

<400> 128
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 ttctgcaaaa tatgagacta tttccacttg ggaaaaatta caacagcaaa 2800
 aaaaaaaaaa aaaaaaaaaa 2819

<210> 129

<211> 438

<212> PRT

<213> Homo sapiens

<400> 129

Met	Tyr	Leu	Ser	Arg	Ser	Leu	Ser	Ile	His	Ala	Leu	Trp	Val	Thr
1				5					10					15
Val	Ser	Ser	Val	Met	Gln	Pro	Tyr	Pro	Leu	Val	Trp	Gly	His	Tyr
				20					25					30
Asp	Leu	Cys	Lys	Thr	Gln	Ile	Tyr	Thr	Glu	Glu	Gly	Lys	Val	Trp
				35					40					45
Asp	Tyr	Met	Ala	Cys	Gln	Pro	Glu	Ser	Thr	Asp	Met	Thr	Lys	Tyr
				50					55					60
Leu	Lys	Val	Lys	Leu	Asp	Pro	Pro	Asp	Ile	Thr	Cys	Gly	Asp	Pro
				65					70					75
Pro	Glu	Thr	Phe	Cys	Ala	Met	Gly	Asn	Pro	Tyr	Met	Cys	Asn	Asn
				80					85					90
Glu	Cys	Asp	Ala	Ser	Thr	Pro	Glu	Leu	Ala	His	Pro	Pro	Glu	Leu
				95					100					105
Met	Phe	Asp	Phe	Glu	Gly	Arg	His	Pro	Ser	Thr	Phe	Trp	Gln	Ser
				110					115					120
Ala	Thr	Trp	Lys	Glu	Tyr	Pro	Lys	Pro	Leu	Gln	Val	Asn	Ile	Thr
				125					130					135

Leu Val Phe

<210> 130
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 130
 tcgattatgg acgaacatgg cagc 24

<210> 131
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 131
 ttctgagatc cctcatcctc 20

<210> 132
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 132
 aggttcaggg acagcaagtt tggg 24

<210> 133
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 133
 tttgctggac ctcggtacg gaattgggtt ccctctacgg acagctggat 50

<210> 134
 <211> 1493
 <212> DNA
 <213> Homo sapiens

<400> 134
 cccacgcgtc cgggtgacct gggccgagcc ctcccggtcg gctaagattg 50
 ctgaggaggc ggcgggtagc tggcaggcgc cgacttccga aggccgcgct 100

ccgggcgagg tgcctcatg acttctcttg tggaccatgt ccgtgatctt 150
 ttttgccctgc gtgggtacggg taagggatgg actgccccctc tcagcctcta 200
 ctgatttttta ccacacccaa gatttttttg aatggaggag acggctcaag 250
 agtttagcct tgcgactggc ccagtatcca ggtcgagggt ctgcagaagg 300
 ttgtgacttt agtatacatt tttcttcttt cggggacgtg gcctgcatgg 350
 ctatctgctc ctgccagtgt ccagcagcca tggccttctg cttcctggag 400
 accctgtggt gggaattcac agcttctat gacactacct gcattggcct 450
 agcctccagg ccatacgtt ttcttgagtt tgacagcatc attcagaaag 500
 tgaagtggca ttttaactat gtaagttcct ctcagatgga gtgcagcttg 550
 gaaaaaatc aggaggagct caagttgcag cctccagcgg ttctcactct 600
 ggaggacaca gatgtggcaa atgggggtgat gaatggtcac acaccgatgc 650
 acttgagacc tgctcctaatt ttccgaatgg aaccagtgac agcctgggt 700
 atcctctccc tcattctcaa catcatgtgt gctgccctga atctcattcg 750
 aggagtccac cttgcagaac attctttaca ggatccaagg agctggttct 800
 gctggttga ccaaacctcg tgagccagcc acccctgacc caaatgagga 850
 gagctctgat tctcccatcc gggagcagtg atgtcaaact tctgctgctg 900
 gggaaatctc atcagcaggg agcctgtgga aaagggcatg tcagtgaat 950
 ctgggaatgg ctggattcgg aaacatctgc ccatgtgtat tgatggcaga 1000
 gctgttgccc acaagcgctt tttatttagg gtaaaattaa caaatccatt 1050
 ctattcctct gacccatgct tagtacatat gacctttaac ccttacattt 1100
 atatgattct ggggttgctt cagaagtgtt atttcatgaa tcattcatat 1150
 gatttgatcc ccaggattc tattttgttt aatgggcttt tctactaaaa 1200
 gcataaaata ctgaggctga tttagtcagg gcaaaacat ttactttaca 1250
 tattcgtttt caatacttgc tgttcatgtt acacaagctt cttacggttt 1300
 tcttgaaca ataaatat ttagtaaaata atgggtacat tttaacaaac 1350
 tcagtagtac aacctaaact tgtataaaag tgtgtaaaaa tgtatagcca 1400
 tttatatacct atgtataaat taaatgaggt ggcttcagaa atggcagaat 1450
 aaatctaaag tgtttattaa aaaaaaaaaa aaaaaaaaaa aag 1493

<210> 135
 <211> 228

<212> PRT
 <213> Homo sapiens

<400> 135

Met	Ser	Val	Ile	Phe	Phe	Ala	Cys	Val	Val	Arg	Val	Arg	Asp	Gly	
1				5					10					15	
Leu	Pro	Leu	Ser	Ala	Ser	Thr	Asp	Phe	Tyr	His	Thr	Gln	Asp	Phe	
				20					25					30	
Leu	Glu	Trp	Arg	Arg	Arg	Leu	Lys	Ser	Leu	Ala	Leu	Arg	Leu	Ala	
				35					40					45	
Gln	Tyr	Pro	Gly	Arg	Gly	Ser	Ala	Glu	Gly	Cys	Asp	Phe	Ser	Ile	
				50					55					60	
His	Phe	Ser	Ser	Phe	Gly	Asp	Val	Ala	Cys	Met	Ala	Ile	Cys	Ser	
				65					70					75	
Cys	Gln	Cys	Pro	Ala	Ala	Met	Ala	Phe	Cys	Phe	Leu	Glu	Thr	Leu	
				80					85					90	
Trp	Trp	Glu	Phe	Thr	Ala	Ser	Tyr	Asp	Thr	Thr	Cys	Ile	Gly	Leu	
				95					100					105	
Ala	Ser	Arg	Pro	Tyr	Ala	Phe	Leu	Glu	Phe	Asp	Ser	Ile	Ile	Gln	
				110					115					120	
Lys	Val	Lys	Trp	His	Phe	Asn	Tyr	Val	Ser	Ser	Ser	Gln	Met	Glu	
				125					130					135	
Cys	Ser	Leu	Glu	Lys	Ile	Gln	Glu	Glu	Leu	Lys	Leu	Gln	Pro	Pro	
				140					145					150	
Ala	Val	Leu	Thr	Leu	Glu	Asp	Thr	Asp	Val	Ala	Asn	Gly	Val	Met	
				155					160					165	
Asn	Gly	His	Thr	Pro	Met	His	Leu	Glu	Pro	Ala	Pro	Asn	Phe	Arg	
				170					175					180	
Met	Glu	Pro	Val	Thr	Ala	Leu	Gly	Ile	Leu	Ser	Leu	Ile	Leu	Asn	
				185					190					195	
Ile	Met	Cys	Ala	Ala	Leu	Asn	Leu	Ile	Arg	Gly	Val	His	Leu	Ala	
				200					205					210	
Glu	His	Ser	Leu	Gln	Asp	Pro	Arg	Ser	Trp	Phe	Cys	Trp	Leu	Asp	
				215					220					225	

Gln Thr Ser

<210> 136
 <211> 239
 <212> DNA
 <213> Homo sapiens
 <220>

<221> unsure
<222> 39, 61, 143, 209
<223> unknown base

<400> 136
tgcttcctgg agaccctgtg gtgggaattc acagcttcnt atgacactac 50
ctgcattggc ntagcctcca ggccatacgc ttttcttgag tttgacagca 100
tcattcagaa agtgaagtgg cattttaact atgtaagttc ctntcagatg 150
gagtgcagct tggaaaaaat tcaggaggag ctcaagttgc agcctccagc 200
ggttctcant atggaggaca cagatgtggc aaatggggt 239

<210> 137
<211> 2300
<212> DNA
<213> Homo sapiens

<400> 137
ctcagcggcg cttcctcgta gcgagcctag tggcgggtgt ttgcattgaa 50
acgtgagcgc gacccgacct taaagagtgg ggagcaaagg gaggacagag 100
ccctttaaaa cgaggcgggt ggtgctgcc cctttaaggc cggggcgctc 150
ggacgactgt atctgagccc cagactgcc cgagtttctg tcgcaggctg 200
cgaggaaagg cccctaggct gggctctgggt gcttggcggc ggcggcttcc 250
tccccgctcg tctccccgg gccagaggc acctcggtt cagtcatgct 300
gagcagagta tggaagcacc tgactacgaa gtgctatccg tgcgagaaca 350
gctattccac gagaggatcc gcgagtgtat tatatcaaca cttctgtttg 400
caacactgta catcctctgc cacatcttcc tgacctgctt caagaagcct 450
gctgagttca ccacagtggg tgatgaagat gccaccgtca acaagattgc 500
gctcgagctg tgcaccttta ccttggcaat tgccctgggt gctgtcctgc 550
tcttgccctt ctccatcatc agcaatgagg tgctgctctc cctgcctcgg 600
aactactaca tccagtggct caacggctcc ctcatccatg gcctctggaa 650
ccttggtttt ctcttcccca acctgtccct catcttctc atgcccttg 700
catatttctt cactgagtct gagggctttg ctggctccag aaagggtgtc 750
ctgggcgggg tctatgagac agtgggtgatg ttgatgctcc tcaactctgct 800
gggtgctagg atgggtgtggg tggcatcagc cattgtggac aagaacaagg 850
ccaacagaga gtcactctat gacttttggg agtactatct cccctacctc 900
tactcatgca tctccttctt tggggttctg ctgctcctgg tgtgtactcc 950

actgggtctc gcccgcatgt tctccgtcac tgggaagctg ctagtcaagc 1000
cccggctgct ggaagacctg gaggagcagc tgtactgctc agcctttgag 1050
gaggcagccc tgacccgcag gatctgtaat cctacttcct gctggctgcc 1100
tttagacatg gagctgctac acagacaggt cctggctctg cagacacaga 1150
gggtcctgct ggagaagagg cggaaggctt cagcctggca acggaacctg 1200
ggctaccccc tggctatgct gtgcttgctg gtgctgacgg gcctgtctgt 1250
gctcattgtg gccatccaca tcctggagct gctcatcgat gaggctgcca 1300
tgccccgagg catgcagggt acctccttag gccaggctctc cttctccaag 1350
ctgggctcct ttggtgccgt cattcagggt gtactcatct ttacctaata 1400
gggtgtcctca gttgtgggct tctatagctc tccactcttc cggagcctgc 1450
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tgtctcctgg tcctaagctc agcacttcct gtcttctctc gaaccctggg 1550
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gcaatttcta cattgtgttc ctctacaacg cagcctttgc aggctcacc 1650
acactctgtc tgggtgaagac cttcactgca gctgtgcggg cagagctgat 1700
ccgggccttt gggtggaca gactgccgt gcccgctctc ggtttcccc 1750
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ggctacttgg acctcaggac ctggaatctg agagggtaggg tggcagaggg 1900
gagcagagcc atctgcaata ttgcataatc tgagccagag tttgggacca 1950
ggacctcctg cttttccata cttaactgtg gcctcagcat ggggtagggc 2000
tgggtgactg ggtctagccc ctgatcccaa atctgtttac acatcaatct 2050
gcctcactgc tgttctgggc catccccata gccatgttta catgatttga 2100
tgtgcaatag ggtgggtag gggcagggaa aggactgggc cagggcaggg 2150
tcgggagata gattgtctcc cttgcctctg gccagcaga gcctaagcac 2200
tgtgctatcc tggaggggct ttggaccacc tgaaagacca aggggatagg 2250
gaggaggagg cttcagccat cagcaataaa gttgatccca gggaaaaaaa 2300

<210> 138
<211> 489
<212> PRT
<213> Homo sapiens

Lys	Arg	Arg	Lys	Ala	Ser	Ala	Trp	Gln	Arg	Asn	Leu	Gly	Tyr	Pro
				290					295					300
Leu	Ala	Met	Leu	Cys	Leu	Leu	Val	Leu	Thr	Gly	Leu	Ser	Val	Leu
				305					310					315
Ile	Val	Ala	Ile	His	Ile	Leu	Glu	Leu	Leu	Ile	Asp	Glu	Ala	Ala
				320					325					330
Met	Pro	Arg	Gly	Met	Gln	Gly	Thr	Ser	Leu	Gly	Gln	Val	Ser	Phe
				335					340					345
Ser	Lys	Leu	Gly	Ser	Phe	Gly	Ala	Val	Ile	Gln	Val	Val	Leu	Ile
				350					355					360
Phe	Tyr	Leu	Met	Val	Ser	Ser	Val	Val	Gly	Phe	Tyr	Ser	Ser	Pro
				365					370					375
Leu	Phe	Arg	Ser	Leu	Arg	Pro	Arg	Trp	His	Asp	Thr	Ala	Met	Thr
				380					385					390
Gln	Ile	Ile	Gly	Asn	Cys	Val	Cys	Leu	Leu	Val	Leu	Ser	Ser	Ala
				395					400					405
Leu	Pro	Val	Phe	Ser	Arg	Thr	Leu	Gly	Leu	Thr	Arg	Phe	Asp	Leu
				410					415					420
Leu	Gly	Asp	Phe	Gly	Arg	Phe	Asn	Trp	Leu	Gly	Asn	Phe	Tyr	Ile
				425					430					435
Val	Phe	Leu	Tyr	Asn	Ala	Ala	Phe	Ala	Gly	Leu	Thr	Thr	Leu	Cys
				440					445					450
Leu	Val	Lys	Thr	Phe	Thr	Ala	Ala	Val	Arg	Ala	Glu	Leu	Ile	Arg
				455					460					465
Ala	Phe	Gly	Leu	Asp	Arg	Leu	Pro	Leu	Pro	Val	Ser	Gly	Phe	Pro
				470					475					480
Gln	Ala	Ser	Arg	Lys	Thr	Gln	His	Gln						
				485										

<210> 139
 <211> 294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 53, 57
 <223> unknown base

<400> 139
 ggctgccgag ggaaggcccc ttgggttggt cttggttgct tggcggcggc 50
 ggnttcntcc ccgctcgtcc tccccgggcc cagaggcacc tcggttcag 100
 tcatgctgag cagagtatgg aagcacctga ctacgaagtg ctatccgtgc 150

gagaacagct attccacgag aggatccgcg agtgtattat atcaacactt 200
 ctgtttgcaa cactgtacat cctctgccac atcttcctga cccgcttcaa 250
 gaagcctgct gagttcacca cagtggatga tgaagatgcc accg 294

<210> 140
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 197, 349
 <223> unknown base

<400> 140
 gaccgacctt aaagagtggg agcaaaggga ggacagagcc ttttaaaacg 50
 aggcggtggt gcctgccctt taagggcggg gcgtccggac gactgtatct 100
 gagccccaga ctgccccgag tttctgtcgc aggctgcgag gaaaggcccc 150
 taggctgggt ctgggtgcttg gcggcggcgg ctctctcccc gttgtcntcc 200
 ccgggccccag aggcacctcg gcttcagtca tgctgagcag agtatggaag 250
 cacctgacta cgaagtgcta tccgtgcgag aacagctatt ccacgagagg 300
 atccgcgagt gtattatata aacacttctg tttgcaacac tgtacatcnt 350
 ctgccacata ttcttgacct gcttcaagaa gcctgctgag ttcaccacag 400
 tggatgatga agatgccacc gtcaacaaga ttgcgctoga gctgtgcacc 450
 tttaccctgg caattgccct ggggtgctgtc ctgctcctgc ccttctccat 500
 catcagcaat gaggtgctgc actccc 526

<210> 141
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 141
 gactgtatct gagccccaga ctgc 24

<210> 142
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 142
 tcagcaatga ggtgctgctc 20

<210> 143
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 143
 tgaggaagat gagggacagg ttgg 24

<210> 144
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 144
 tatggaagca cctgactacg aagtgcctatc cgtgcgagaa cagctattcc 50

<210> 145
 <211> 685
 <212> DNA
 <213> Homo sapiens

<400> 145
 gatgtgctcc ttggagctgg tgtgcagtgt cctgactgta agatcaagtc 50
 caaacctggt ttggaattga ggaaacttct cttttgatct cagcccttgg 100
 tgggtccaggt cttcatgctg ctgtgggtga tattactggg cctggctcct 150
 gtcagtggac agtttgcaag gacacccagg cccattattt tcctccagcc 200
 tccatggacc acagtcttcc aaggagagag agtgaccctc acttgcaagg 250
 gatttcgctt ctactacca cagaaaacaa aatggtacca tcggtacctt 300
 gggaaagaaa tactaagaga aaccccagac aatatccttg aggttcagga 350
 atctggagag tacagatgcc aggccagggt cccccctctc agtagccctg 400
 tgcacttgga tttttcttca gagatgggat ttctcatgct tgcccaggct 450
 aatgttgaac tcctgggctc aagtgatctg ctcacctagg cctctcaaag 500
 cgctgggatt acagcttcgc tgatcctgca agctccactt tctgtgtttg 550
 aaggagactc tgtggttctg aggtgccggg caaaggcgga agtaacactg 600
 aataatacta ttacaagaa tgataatgtc ctggcattcc ttaataaaaag 650
 aactgacttc caaaaaaaaaa aaaaaaaaaa aaaaa 685

<210> 146
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 146
 Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly
 1 5 10 15
 Gln Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro
 20 25 30
 Trp Thr Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys
 35 40 45
 Gly Phe Arg Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg
 50 55 60
 Tyr Leu Gly Lys Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu
 65 70 75
 Glu Val Gln Glu Ser Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser
 80 85 90
 Pro Leu Ser Ser Pro Val His Leu Asp Phe Ser Ser Glu Met Gly
 95 100 105
 Phe Pro His Ala Ala Gln Ala Asn Val Glu Leu Leu Gly Ser Ser
 110 115 120
 Asp Leu Leu Thr

<210> 147
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 147
 cagaagaggg ggctagctag ctgtctctgc ggaccagggg gacccccgcg 50
 cccccccggt gtgaggcggc ctcacagggc cgggtgggct ggcgagccga 100
 cgcggcggcg gaggaggctg tgaggagtgt gtggaacagg acccgggaca 150
 gaggaaccat ggctccgcag aacctgagca ccttttgctt gttgctgcta 200
 tacctcatcg gggcgggtgat tgccggacga gatttctata agatcttggg 250
 ggtgcctcga agtgcctcta taaaggatat taaaaaggcc tataggaaac 300
 tagccctgca gttcatccc gaccggaacc ctgatgatcc acaagcccag 350
 gagaaattcc aggatctggg tgctgcttat gaggttctgt cagatagtga 400
 gaaacggaaa cagtacgata cttatggtga agaaggatta aaagatggtc 450
 atcagagctc ccatggagac attttttcac acttctttgg ggattttggg 500

ttcatgtttg gaggaacccc tcgtcagcaa gacagaaata ttccaagagg 550
aagtgatatt attgtagatc tagaagtcac tttggaagaa gtatatgcag 600
gaaattttgt ggaagtagtt agaaacaaac ctgtggcaag gcaggctcct 650
ggcaaacgga agtgcaattg tcggcaagag atgcggacca cccagctggg 700
ccctgggagc ttccaaatga cccaggaggt ggtctgcgac gaatgcccta 750
atgtcaaact agtgaatgaa gaacgaacgc tggaagtaga aatagagcct 800
ggggtgagag acggcatgga gtaccctttt attggagaag gtgagcctca 850
cgtggatggg gagcctggag atttacggtt ccgaatcaaa gttgtcaagc 900
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tggtcacaag gtacatattt cccgggataa gatcaccagg ccaggagcga 1050
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aagggtcttt tgataatcac ttttgatgtg gattttccaa aagaacagtt 1150
aacagaggaa gcgagagaag gtatcaaaca gctactgaaa caagggtcag 1200
tgcagaaggt atacaatgga ctgcaaggat attgagagtg aataaaattg 1250
gactttgttt aaaataagtg aataagcgat atttattatc tgcaaggttt 1300
ttttgtgtgt gttttgtttt ttattttcaa tatgcaagtt aggcttaatt 1350
tttttatcta atgatcatca tgaaatgaat aagagggctt aagaatttgt 1400
ccatttgcatt tcggaaaaga atgaccagca aaagggtttac taatacctct 1450
ccctttgggg atttaatgtc tgggtgctgcc gcctgagttt caagaattaa 1500
agctgcaaga ggactccagg agcaaaagaa acacaatata gaggggttga 1550
gttgtagca atttcattca aaatgccaac tggagaagtc tgtttttaaa 1600
tacattttgt tgttattttt a 1621

<210> 148
<211> 358
<212> PRT
<213> Homo sapiens

<400> 148
Met Ala Pro Gln Asn Leu Ser Thr Phe Cys Leu Leu Leu Leu Tyr
1 5 10 15
Leu Ile Gly Ala Val Ile Ala Gly Arg Asp Phe Tyr Lys Ile Leu
20 25 30

320	325	330
Leu Thr Glu Glu Ala Arg Glu Gly Ile	Lys Gln Leu Leu Lys Gln	
335	340	345
Gly Ser Val Gln Lys Val Tyr Asn Gly	Leu Gln Gly Tyr	
350	355	

<210> 149
 <211> 509
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 34, 52, 134, 142, 155, 158, 196, 217, 228, 272, 347, 410, 445, 482
 <223> unknown base

<400> 149
 tgggaccagg gaaccccgagg ccccccgggtg gagngcctaa caggccgggtg 50
 gntgcgaccg aagcggcgagg cggaggaggt tttgaggatt tttggaacag 100
 gaccgcggaca gaggaacat ggttccgcag aacntgagca cnttttgcct 150
 gttgntgnta tacttcatcg gggcggtgat tgccggacga gatttntata 200
 agattttggg gtgcctngaa gtgcctnta taaaggatat taaaaaggcc 250
 tataggaaac tagccctgca gntttatccc gaccggaacc ctgatgatcc 300
 acaagcccag gagaaattcc aggatttggg tgctgcttat gaggttntgt 350
 cagatagtga gaaacggaaa cagtacgata attatggtga agaaggatta 400
 aaagatggtn atcagagctc ccatggagac attttttcac acttntttgg 450
 ggattttggt ttcattgttg gaggaacccc tngtcagcaa gacagaaata 500
 ttccaagag 509

<210> 150
 <211> 1532
 <212> DNA
 <213> Homo sapiens

<400> 150
 ggcacgaggc ggcggggcag tcgcgggatg cgcccgggag ccacagcctg 50
 aggcctcag gtctctgcag gtgtcgtgga ggaacctagc acctgccatc 100
 ctcttcccca atttgccact tccagcagct ttagcccatg aggaggatgt 150
 gaccgggact gagtcaggag ccctctggaa gcatggagac tgtggtgatt 200
 gttgccatag gtgtgctggc caccatcttt ctggcttcgt ttgcagcctt 250

ggtgctgggt tgcaggcagc gctactgccg gccgcgagac ctgctgcagc 300
 gctatgattc taagccatt gtggacctca ttggtgccat ggagaccag 350
 tctgagccct ctgagttaga actggacgat gtcgttatca ccaaccccca 400
 cattgaggcc attctggaga atgaagactg gatcgaagat gcctcgggtc 450
 tcatgtccca ctgcattgcc atcttgaaga tttgtcacac tctgacagag 500
 aagcttggtg ccatgacaat gggctctggg gccaatga agacttcagc 550
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 atgatgttgt gaagtcgatg taccctccgt tggaccccaa actcctggac 650
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 aaggaatgcc tgccatctga cgggaggcct ggactggatt gaccagtctc 750
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 tctgagccag ataaaggcct ccagggcct gaaggcttcc tgcaggagca 850
 gtctgcaatt tagtgacctac aggccagcag ctagccatga aggccctgc 900
 cgccatccct ggatggtcga gcttagcctt ctactttttc ctatagagtt 950
 agttgttctc cacggctgga gagttcagct gtgtgtgcat agtaaagcag 1000
 gagatccccg tcagtttatg cctcttttgc agttgcaaac tgtggctggt 1050
 gagtggcagt ctaatactac agttagggga gatgccattc actctctgca 1100
 agaggagtat tgaaaactgg tggactgtca gctttattta gctcacctag 1150
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 atacttatgt ttccctcaaa aaaaaaaaaa aa 1532

<210> 151
 <211> 226
 <212> PRT
 <213> Homo sapiens
 <400> 151

Met	Glu	Thr	Val	Val	Ile	Val	Ala	Ile	Gly	Val	Leu	Ala	Thr	Ile	
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Phe	Leu	Ala	Ser	Phe	Ala	Ala	Leu	Val	Leu	Val	Cys	Arg	Gln	Arg	
				20					25					30	
Tyr	Cys	Arg	Pro	Arg	Asp	Leu	Leu	Gln	Arg	Tyr	Asp	Ser	Lys	Pro	
				35					40					45	
Ile	Val	Asp	Leu	Ile	Gly	Ala	Met	Glu	Thr	Gln	Ser	Glu	Pro	Ser	
				50					55					60	
Glu	Leu	Glu	Leu	Asp	Asp	Val	Val	Ile	Thr	Asn	Pro	His	Ile	Glu	
				65					70					75	
Ala	Ile	Leu	Glu	Asn	Glu	Asp	Trp	Ile	Glu	Asp	Ala	Ser	Gly	Leu	
				80					85					90	
Met	Ser	His	Cys	Ile	Ala	Ile	Leu	Lys	Ile	Cys	His	Thr	Leu	Thr	
				95					100					105	
Glu	Lys	Leu	Val	Ala	Met	Thr	Met	Gly	Ser	Gly	Ala	Lys	Met	Lys	
				110					115					120	
Thr	Ser	Ala	Ser	Val	Ser	Asp	Ile	Ile	Val	Val	Ala	Lys	Arg	Ile	
				125					130					135	
Ser	Pro	Arg	Val	Asp	Asp	Val	Val	Lys	Ser	Met	Tyr	Pro	Pro	Leu	
				140					145					150	
Asp	Pro	Lys	Leu	Leu	Asp	Ala	Arg	Thr	Thr	Ala	Leu	Leu	Leu	Ser	
				155					160					165	
Val	Ser	His	Leu	Val	Leu	Val	Thr	Arg	Asn	Ala	Cys	His	Leu	Thr	
				170					175					180	
Gly	Gly	Leu	Asp	Trp	Ile	Asp	Gln	Ser	Leu	Ser	Ala	Ala	Glu	Glu	
				185					190					195	
His	Leu	Glu	Val	Leu	Arg	Glu	Ala	Ala	Leu	Ala	Ser	Glu	Pro	Asp	
				200					205					210	
Lys	Gly	Leu	Pro	Gly	Pro	Glu	Gly	Phe	Leu	Gln	Glu	Gln	Ser	Ala	
				215					220					225	

Ile

<210> 152
 <211> 1027
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 1017, 1020
 <223> unknown base

<400> 152
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aaaattggaa tgggattaac aggatttgga gtgtttttcc tgttctttgg 150
aatgattctc ttttttgaca aagcactact ggctattgga aatgttttat 200
ttgtagccgg cttggctttt gtaattgggt tagaaagaac attcagattc 250
ttcttccaaa aacataaaat gaaagctaca ggtttttttc tgggtggtgt 300
atgtgtagtc cttattgggt ggcttttgat aggcattgat ttcgaaattt 350
atggattttt tctcttgctc aggggcttct ttctgtcgt tgttggttt 400
attagaagag tgccagtcct tggatccctc ctaaatttac ctggaattag 450
atcatttgta gataaagttg gagaaagcaa caatatggta taacaacaag 500
tgaatttgaa gactcattta aaatattgtg ttatttataa agtcatttga 550
agaatattca gcacaaaatt aaattacatg aaatagcttg taatgttctt 600
tacaggagtt taaaacgtat agcctacaaa gtaccagcag caaattagca 650
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ttagagaact gtggtgcctg tttcttttct ttttattttg aaggctcagg 850
agcatccata ggcatttgct ttttagaagt gtccactgca atggcaaaaa 900
tatttccagt tgcactgtat ctctggaagt gatgcatgaa ttcgattgga 950
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ggattacttt tttttgngcn cagggcc 1027

<210> 153
<211> 138
<212> PRT
<213> Homo sapiens

<220>
<221> N-myristoylation Sites
<222> 11-16, 51-56 and 116-121
<223> N-myristoylation Sites.

<220>
<221> Transmembrane domains
<222> 12-30, 33-52, 69-89 and 93-109
<223> Transmembrane domains

<220>
 <221> Aminoacyl-transfer RNA Synthetases.
 <222> 49-59
 <223> Aminoacyl-transfer RNA synthetases class-II protein.

<400> 153
 Met Ile Ser Leu Thr Asp Thr Gln Lys Ile Gly Met Gly Leu Thr
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 Gly Phe Gly Val Phe Phe Leu Phe Phe Gly Met Ile Leu Phe Phe
 20 25 30
 Asp Lys Ala Leu Leu Ala Ile Gly Asn Val Leu Phe Val Ala Gly
 35 40 45
 Leu Ala Phe Val Ile Gly Leu Glu Arg Thr Phe Arg Phe Phe Phe
 50 55 60
 Gln Lys His Lys Met Lys Ala Thr Gly Phe Phe Leu Gly Gly Val
 65 70 75
 Phe Val Val Leu Ile Gly Trp Pro Leu Ile Gly Met Ile Phe Glu
 80 85 90
 Ile Tyr Gly Phe Phe Leu Leu Phe Arg Gly Phe Phe Pro Val Val
 95 100 105
 Val Gly Phe Ile Arg Arg Val Pro Val Leu Gly Ser Leu Leu Asn
 110 115 120
 Leu Pro Gly Ile Arg Ser Phe Val Asp Lys Val Gly Glu Ser Asn
 125 130 135
 Asn Met Val

<210> 154
 <211> 405
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 66
 <223> unknown base

<400> 154
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 ccactgcagc catgatctcc ttaacggaca cgcagaaaat tggaatggga 150
 ttaaccggat ttggagtgtt tttcctgttc tttggaatga ttctcttttt 200
 tgacaaagca ctactggcta ttggaaatgt tttatttgta gccggcttgg 250
 cttttgtaat tggtttagaa agaacattca gattcttctt ccaaaaacat 300

aaaatgaaag ctacaggttt ttttctgggt ggtgtatttg tagtccttat 350
 tggttggcct ttgataggca tgatcttcga aatttatgga ttttttctct 400
 tgttc 405

<210> 155
 <211> 1781
 <212> DNA
 <213> Homo sapiens

<400> 155
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 tttcttcctt ctggaaatct ttgactgtgg gtagttattt atttctgaat 150
 aagagcgtcc acgcatcatg gacctcgcg gactgctgaa gtctcagttc 200
 ctgtgccacc tggctctctg ctacgtcttt attgcctcag ggctaatac 250
 caacaccatt cagctcttca ctctctctct ctggccatt aacaagcagc 300
 tcttccggaa gatcaactgc agactgtctt attgcatctc aagccagctg 350
 gtgatgctgc tggagtggg gtcgggcacg gaatgcacca tcttcacgga 400
 cccgcgcgcc tacctcaagt atgggaagga aaatgccatc gtggttctca 450
 accacaagtt tgaattgac tttctgtgtg gctggagcct gtccgaacgc 500
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 tgtcccaatt atcggctgga tgtggtactt caccgagatg gtcttctgtt 600
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 ctccgggact accccgagaa gtattttttc ctgattcact gtgagggcac 700
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 tacactcaat ttcagaaata atgaaaatcc aactactgctg ggagtcctaa 900
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 ctgttttggg cctcgctggt gctctaccct ttcttccagt tcttggtcag 1150

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ctgactcagg gaggtgtcac catccgaagg gaaccttggg gaactggtgg 1350
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taaagtgcct ttctgggtca aaaaaaaaaa a 1781

<210> 156
<211> 378
<212> PRT
<213> Homo sapiens

<400> 156
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Ile Gln Leu Phe Thr Leu Leu Leu Trp Pro Ile Asn Lys Gln Leu
35 40 45
Phe Arg Lys Ile Asn Cys Arg Leu Ser Tyr Cys Ile Ser Ser Gln
50 55 60
Leu Val Met Leu Leu Glu Trp Trp Ser Gly Thr Glu Cys Thr Ile
65 70 75
Phe Thr Asp Pro Arg Ala Tyr Leu Lys Tyr Gly Lys Glu Asn Ala
80 85 90
Ile Val Val Leu Asn His Lys Phe Glu Ile Asp Phe Leu Cys Gly
95 100 105
Trp Ser Leu Ser Glu Arg Phe Gly Leu Leu Gly Gly Ser Lys Val
110 115 120
Leu Ala Lys Lys Glu Leu Ala Tyr Val Pro Ile Ile Gly Trp Met
125 130 135

Trp	Tyr	Phe	Thr	Glu	Met	Val	Phe	Cys	Ser	Arg	Lys	Trp	Glu	Gln
				140					145					150
Asp	Arg	Lys	Thr	Val	Ala	Thr	Ser	Leu	Gln	His	Leu	Arg	Asp	Tyr
				155					160					165
Pro	Glu	Lys	Tyr	Phe	Phe	Leu	Ile	His	Cys	Glu	Gly	Thr	Arg	Phe
				170					175					180
Thr	Glu	Lys	Lys	His	Glu	Ile	Ser	Met	Gln	Val	Ala	Arg	Ala	Lys
				185					190					195
Gly	Leu	Pro	Arg	Leu	Lys	His	His	Leu	Leu	Pro	Arg	Thr	Lys	Gly
				200					205					210
Phe	Ala	Ile	Thr	Val	Arg	Ser	Leu	Arg	Asn	Val	Val	Ser	Ala	Val
				215					220					225
Tyr	Asp	Cys	Thr	Leu	Asn	Phe	Arg	Asn	Asn	Glu	Asn	Pro	Thr	Leu
				230					235					240
Leu	Gly	Val	Leu	Asn	Gly	Lys	Lys	Tyr	His	Ala	Asp	Leu	Tyr	Val
				245					250					255
Arg	Arg	Ile	Pro	Leu	Glu	Asp	Ile	Pro	Glu	Asp	Asp	Asp	Glu	Cys
				260					265					270
Ser	Ala	Trp	Leu	His	Lys	Leu	Tyr	Gln	Glu	Lys	Asp	Ala	Phe	Gln
				275					280					285
Glu	Glu	Tyr	Tyr	Arg	Thr	Gly	Thr	Phe	Pro	Glu	Thr	Pro	Met	Val
				290					295					300
Pro	Pro	Arg	Arg	Pro	Trp	Thr	Leu	Val	Asn	Trp	Leu	Phe	Trp	Ala
				305					310					315
Ser	Leu	Val	Leu	Tyr	Pro	Phe	Phe	Gln	Phe	Leu	Val	Ser	Met	Ile
				320					325					330
Arg	Ser	Gly	Ser	Ser	Leu	Thr	Leu	Ala	Ser	Phe	Ile	Leu	Val	Phe
				335					340					345
Phe	Val	Ala	Ser	Val	Gly	Val	Arg	Trp	Met	Ile	Gly	Val	Thr	Glu
				350					355					360
Ile	Asp	Lys	Gly	Ser	Ala	Tyr	Gly	Asn	Ser	Asp	Ser	Lys	Gln	Lys
				365					370					375

Leu Asn Asp

<210> 157
 <211> 1849
 <212> DNA
 <213> Homo sapiens

<400> 157
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tactgattcc caaatggatg atgttgaagt tgtttataca attgacattc 200
agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
gaagtaaag agcaagcact gaagaaaata ttatcaaag tcaaaaagaa 300
tgtggtagggt tggtagaaaat tccgtcgtca ttcagatcag atcatgacgt 350
ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400
gaccttggtt ttctgctatt aacaccaagt ataataacag aaagctgctc 450
tactcatoga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
acagggtacc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550
tataaaactg tatcagggtc ctgtatgtcc actgggttta gccgagcagt 600
acaaacacac agctctaaat tttttgaaga agatggatcc ttaaaggagg 650
tacataagat aaatgaaag tatgcttcat tacaagagga attaaagagt 700
atatgcaaaa aagtggaaga cagtgaacaa gcagtagata aactagtaaa 750
ggatgtaaac agattaaaac gagaaattga gaaaaggaga ggagcacaga 800
ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850
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gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcgg 1100
tgtagatag acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150
caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200
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tttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300
atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350
tttactatgt tcacctgttt gcagtaatac acagataact cttagtgcac 1400
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tttttttcac ctttcactaa gttgttgagg ggaaggctta cacagacaca 1500

ttcttttagaa ttggaaaagt gagaccaggc acagtggctc acacctgtaa 1550
 tcccagcact tagggaagac aagtcaggag gattgattga agctaggagt 1600
 tagagaccag cctgggcaac gtattgagac catgtctatt aaaaaataaa 1650
 atggaaaagc aagaatagcc ttattttcaa aatatggaaa gaaatttata 1700
 tgaaaattta tctgagtcac taaaattctc cttaagtgat acttttttag 1750
 aagtacatta tggctagagt tgccagataa aatgctggat atcatgcaat 1800
 aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 158

<211> 409

<212> PRT

<213> Homo sapiens

<400> 158

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Gly	Ala	Leu	Ala	Phe	Gln	His	Leu	Asn	Thr	Asp	Ser	Asp	Thr	Glu	
				20					25					30	
Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile	
				35					40					45	
Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp	
				50					55					60	
Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn	
				65					70					75	
Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser	
				80					85					90	
Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His	
				95					100					105	
Ser	Asp	Gln	Ile	Met	Thr	Phe	Arg	Glu	Arg	Leu	Leu	His	Lys	Asn	
				110					115					120	
Leu	Gln	Glu	His	Phe	Ser	Asn	Gln	Asp	Leu	Val	Phe	Leu	Leu	Leu	
				125					130					135	
Thr	Pro	Ser	Ile	Ile	Thr	Glu	Ser	Cys	Ser	Thr	His	Arg	Leu	Glu	
				140					145					150	
His	Ser	Leu	Tyr	Lys	Pro	Gln	Lys	Gly	Leu	Phe	His	Arg	Val	Pro	
				155					160					165	
Leu	Val	Val	Ala	Asn	Leu	Gly	Met	Ser	Glu	Gln	Leu	Gly	Tyr	Lys	
				170					175					180	
Thr	Val	Ser	Gly	Ser	Cys	Met	Ser	Thr	Gly	Phe	Ser	Arg	Ala	Val	
				185					190					195	

Gln	Thr	His	Ser	Ser	Lys	Phe	Phe	Glu	Glu	Asp	Gly	Ser	Leu	Lys	200	205	210
Glu	Val	His	Lys	Ile	Asn	Glu	Met	Tyr	Ala	Ser	Leu	Gln	Glu	Glu	215	220	225
Leu	Lys	Ser	Ile	Cys	Lys	Lys	Val	Glu	Asp	Ser	Glu	Gln	Ala	Val	230	235	240
Asp	Lys	Leu	Val	Lys	Asp	Val	Asn	Arg	Leu	Lys	Arg	Glu	Ile	Glu	245	250	255
Lys	Arg	Arg	Gly	Ala	Gln	Ile	Gln	Ala	Ala	Arg	Glu	Lys	Asn	Ile	260	265	270
Gln	Lys	Asp	Pro	Gln	Glu	Asn	Ile	Phe	Leu	Cys	Gln	Ala	Leu	Arg	275	280	285
Thr	Phe	Phe	Pro	Asn	Ser	Glu	Phe	Leu	His	Ser	Cys	Val	Met	Ser	290	295	300
Leu	Lys	Asn	Arg	His	Val	Ser	Lys	Ser	Ser	Cys	Asn	Tyr	Asn	His	305	310	315
His	Leu	Asp	Val	Val	Asp	Asn	Leu	Thr	Leu	Met	Val	Glu	His	Thr	320	325	330
Asp	Ile	Pro	Glu	Ala	Ser	Pro	Ala	Ser	Thr	Pro	Gln	Ile	Ile	Lys	335	340	345
His	Lys	Ala	Leu	Asp	Leu	Asp	Asp	Arg	Trp	Gln	Phe	Lys	Arg	Ser	350	355	360
Arg	Leu	Leu	Asp	Thr	Gln	Asp	Lys	Arg	Ser	Lys	Ala	Asn	Thr	Gly	365	370	375
Ser	Ser	Asn	Gln	Asp	Lys	Ala	Ser	Lys	Met	Ser	Ser	Pro	Glu	Thr	380	385	390
Asp	Glu	Glu	Ile	Glu	Lys	Met	Lys	Gly	Phe	Gly	Glu	Tyr	Ser	Arg	395	400	405

Ser Pro Thr Phe

<210> 159
 <211> 2651
 <212> DNA
 <213> Homo sapiens

<400> 159
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 cgccgcccac accctctgcg gtccccgcgg cgctgccac ccttcctcc 150
 ttccccgcgt cccgcctcg ccggccagtc agcttgccgg gttcgctgcc 200

ccgcgaaacc ccgaggtcac cagccccgcg ctctgcttcc ctgggccgcg 250
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 accgttgccct gacgcgaggg ccagctctac ttttcgcccc gcgtctcctc 350
 cgctgctcg cctcttccac caactccaac tccttctccc tccagctcca 400
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 ccgcgctgct ggctgcccag ctcaagtcca aaagttgctc ggaagtgcga 600
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 ctcaagagat ggaggagaag tacagcctgc aaagtaaaga tgatttcaaa 750
 agtggtggtca gcgaacagtg caatcatttg caagctgtct ttgcttcacg 800
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 tcctggagcg gatgttccgc ctggtgaact cccagtacca ctttacagat 1050
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 actactgctc aaacatcatg agaggctgtt tggccaacca aggggatctc 1350
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 ctctattatt tgtttgtatg tttttttctc atttcgtttg tgggtttttt 2500
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 c 2651

<210> 160
 <211> 556
 <212> PRT
 <213> Homo sapiens

<400> 160
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 Leu Ser Ala Ala Leu Leu Ala Ala Glu Leu Lys Ser Lys Ser Cys
 20 25 30
 Ser Glu Val Arg Arg Leu Tyr Val Ser Lys Gly Phe Asn Lys Asn
 35 40 45
 Asp Ala Pro Leu His Glu Ile Asn Gly Asp His Leu Lys Ile Cys

00041592 032301 2514660

50	55	60
Pro Gln Gly Ser Thr Cys Cys Ser Gln Glu Met Glu Glu Lys Tyr		
65	70	75
Ser Leu Gln Ser Lys Asp Asp Phe Lys Ser Val Val Ser Glu Gln		
80	85	90
Cys Asn His Leu Gln Ala Val Phe Ala Ser Arg Tyr Lys Lys Phe		
95	100	105
Asp Glu Phe Phe Lys Glu Leu Leu Glu Asn Ala Glu Lys Ser Leu		
110	115	120
Asn Asp Met Phe Val Lys Thr Tyr Gly His Leu Tyr Met Gln Asn		
125	130	135
Ser Glu Leu Phe Lys Asp Leu Phe Val Glu Leu Lys Arg Tyr Tyr		
140	145	150
Val Val Gly Asn Val Asn Leu Glu Glu Met Leu Asn Asp Phe Trp		
155	160	165
Ala Arg Leu Leu Glu Arg Met Phe Arg Leu Val Asn Ser Gln Tyr		
170	175	180
His Phe Thr Asp Glu Tyr Leu Glu Cys Val Ser Lys Tyr Thr Glu		
185	190	195
Gln Leu Lys Pro Phe Gly Asp Val Pro Arg Lys Leu Lys Leu Gln		
200	205	210
Val Thr Arg Ala Phe Val Ala Ala Arg Thr Phe Ala Gln Gly Leu		
215	220	225
Ala Val Ala Gly Asp Val Val Ser Lys Val Ser Val Val Asn Pro		
230	235	240
Thr Ala Gln Cys Thr His Ala Leu Leu Lys Met Ile Tyr Cys Ser		
245	250	255
His Cys Arg Gly Leu Val Thr Val Lys Pro Cys Tyr Asn Tyr Cys		
260	265	270
Ser Asn Ile Met Arg Gly Cys Leu Ala Asn Gln Gly Asp Leu Asp		
275	280	285
Phe Glu Trp Asn Asn Phe Ile Asp Ala Met Leu Met Val Ala Glu		
290	295	300
Arg Leu Glu Gly Pro Phe Asn Ile Glu Ser Val Met Asp Pro Ile		
305	310	315
Asp Val Lys Ile Ser Asp Ala Ile Met Asn Met Gln Asp Asn Ser		
320	325	330
Val Gln Val Ser Gln Lys Val Phe Gln Gly Cys Gly Pro Pro Lys		
335	340	345

Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala	350	355	360
Phe	Ser	Ala	Arg	Phe	Arg	Pro	His	His	Pro	Glu	Glu	Arg	Pro	Thr	365	370	375
Thr	Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Val	Lys	380	385	390
Glu	Lys	Leu	Lys	Gln	Ala	Lys	Lys	Phe	Trp	Ser	Ser	Leu	Pro	Ser	395	400	405
Asn	Val	Cys	Asn	Asp	Glu	Arg	Met	Ala	Ala	Gly	Asn	Gly	Asn	Glu	410	415	420
Asp	Asp	Cys	Trp	Asn	Gly	Lys	Gly	Lys	Ser	Arg	Tyr	Leu	Phe	Ala	425	430	435
Val	Thr	Gly	Asn	Gly	Leu	Ala	Asn	Gln	Gly	Asn	Asn	Pro	Glu	Val	440	445	450
Gln	Val	Asp	Thr	Ser	Lys	Pro	Asp	Ile	Leu	Ile	Leu	Arg	Gln	Ile	455	460	465
Met	Ala	Leu	Arg	Val	Met	Thr	Ser	Lys	Met	Lys	Asn	Ala	Tyr	Asn	470	475	480
Gly	Asn	Asp	Val	Asp	Phe	Phe	Asp	Ile	Ser	Asp	Glu	Ser	Ser	Gly	485	490	495
Glu	Gly	Ser	Gly	Ser	Gly	Cys	Glu	Tyr	Gln	Gln	Cys	Pro	Ser	Glu	500	505	510
Phe	Asp	Tyr	Asn	Ala	Thr	Asp	His	Ala	Gly	Lys	Ser	Ala	Asn	Glu	515	520	525
Lys	Ala	Asp	Ser	Ala	Gly	Val	Arg	Pro	Gly	Ala	Gln	Ala	Tyr	Leu	530	535	540
Leu	Thr	Val	Phe	Cys	Ile	Leu	Phe	Leu	Val	Met	Gln	Arg	Glu	Trp	545	550	555

Arg

<210> 161

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 161

ctccgtggta aacccacag ccc 23

<210> 162

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 162
tcacatcgat gggatccatg accg 24

<210> 163
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 163
ggtctcgtga ctgtgaagcc atgttacaac tactgctcaa acatcatgag 50

<210> 164
<211> 870
<212> DNA
<213> Homo sapiens

<400> 164
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ggaaccttcc attatatctt tcaagcaact tacagctgca cgcacagttg 150
cgatgaaagt tctaattctt tccctcctcc tgttgetgccc actaatgctg 200
atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250
ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300
gtgagtgcaa agattgggtc ctgagagccc cgagaagaaa attcatgaca 350
gtgtctgggc tgccaaagaa gcagtgcctc tgtgatcatt tcaagggcaa 400
tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450
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actctccac tgtaccacac cctaaatcat tccagtgtc tcaaaaagca 650
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cgtcagtctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750
ctgaaagatt ccaggaaact gtagcttctt agctagtgtc atttaacctt 800

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tcaaaaaaaaa aaaaaaaaaa 870

<210> 165

<211> 119

<212> PRT

<213> Homo sapiens

<400> 165

Met	Lys	Val	Leu	Ile	Ser	Ser	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Met
1				5					10					15

Leu	Met	Ser	Met	Val	Ser	Ser	Ser	Leu	Asn	Pro	Gly	Val	Ala	Arg
				20					25					30

Gly	His	Arg	Asp	Arg	Gly	Gln	Ala	Ser	Arg	Arg	Trp	Leu	Gln	Glu
				35					40					45

Gly	Gly	Gln	Glu	Cys	Glu	Cys	Lys	Asp	Trp	Phe	Leu	Arg	Ala	Pro
				50					55					60

Arg	Arg	Lys	Phe	Met	Thr	Val	Ser	Gly	Leu	Pro	Lys	Lys	Gln	Cys
				65					70					75

Pro	Cys	Asp	His	Phe	Lys	Gly	Asn	Val	Lys	Lys	Thr	Arg	His	Gln
				80					85					90

Arg	His	His	Arg	Lys	Pro	Asn	Lys	His	Ser	Arg	Ala	Cys	Gln	Gln
				95					100					105

Phe	Leu	Lys	Gln	Cys	Gln	Leu	Arg	Ser	Phe	Ala	Leu	Pro	Leu
				110					115				

<210> 166

<211> 551

<212> DNA

<213> Homo sapiens

<400> 166

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ccagacgact cgggcaaaga cccaaagcca gacttcccca aattcctaag 150

cctcctgggc acagagatca ttgagaatgc agtcgagttc atcctccgct 200

ccatgtccag gagcacagga tttatggaat ttgatgataa tgaaggaaaa 250

cattcatcaa agtgacatcc tcaggacaca cccatgtggc tcctggacaa 300

tccaagagca gccaaatcct gcttttccag tttggctcca caagtccctc 350

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tggcttcaac caaacagaac tcattttgaa caccctgact gcatttttgc 450

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 agaggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
 a 551

<210> 167
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 167
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 20 25 30
 Asp Asp Lys Pro Asp Asp Ser Gly Lys Asp Pro Lys Pro Asp Phe
 35 40 45
 Pro Lys Phe Leu Ser Leu Leu Gly Thr Glu Ile Ile Glu Asn Ala
 50 55 60
 Val Glu Phe Ile Leu Arg Ser Met Ser Arg Ser Thr Gly Phe Met
 65 70 75
 Glu Phe Asp Asp Asn Glu Gly Lys His Ser Ser Lys
 80 85

<210> 168
 <211> 1371
 <212> DNA
 <213> Homo sapiens

<400> 168
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 gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150
 tgggctgctg gcagcccctg tgcaaaagct acttccccta cctgatggcc 200
 gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250
 cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300
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 aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggtgg 450
 ctctgggaga ggacatgaga cagctggctg atggctccat ggatgtggtg 500
 gtctgcactc tgggtgctgtg ctctgtgcag agcccaagga aggtcctgca 550

ggaggtccgg agagtactga gaccgggagg tgtgtctctt ttctgggagc 600
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 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100
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 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300
 atgccagagc aagactcaaa gaggcagagg ttttgttctc aaatattttt 1350
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<210> 169

<211> 277

<212> PRT

<213> Homo sapiens

<400> 169

Met	Asp	Ile	Leu	Val	Pro	Leu	Leu	Gln	Leu	Leu	Val	Leu	Leu	Leu
1				5				10						15
Thr	Leu	Pro	Leu	His	Leu	Met	Ala	Leu	Leu	Gly	Cys	Trp	Gln	Pro
				20				25						30
Leu	Cys	Lys	Ser	Tyr	Phe	Pro	Tyr	Leu	Met	Ala	Val	Leu	Thr	Pro
				35				40						45
Lys	Ser	Asn	Arg	Lys	Met	Glu	Ser	Lys	Lys	Arg	Glu	Leu	Phe	Ser
				50				55						60
Gln	Ile	Lys	Gly	Leu	Thr	Gly	Ala	Ser	Gly	Lys	Val	Ala	Leu	Leu
				65				70						75
Glu	Leu	Gly	Cys	Gly	Thr	Gly	Ala	Asn	Phe	Gln	Phe	Tyr	Pro	Pro
				80				85						90

Gly Cys Arg Val	Thr Cys Leu Asp	Pro Asn Pro His Phe Glu Lys	95	100	105
Phe Leu Thr Lys	Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu	110	115	120	
Arg Phe Val Val	Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp	125	130	135	
Gly Ser Met Asp	Val Val Val Cys Thr Leu Val Leu Cys Ser Val	140	145	150	
Gln Ser Pro Arg	Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg	155	160	165	
Pro Gly Gly Val	Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr	170	175	180	
Gly Ser Trp Ala	Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp	185	190	195	
Lys His Ile Gly	Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys	200	205	210	
Asp Leu Glu Asn	Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln	215	220	225	
Pro Pro Pro Leu	Lys Trp Leu Pro Val Gly Pro His Ile Met Gly	230	235	240	
Lys Ala Val Lys	Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys	245	250	255	
Ser Phe Pro Ser	Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile	260	265	270	
Tyr Leu Pro Leu	Arg Gly Thr	275			

<210> 170
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 170
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 agatgtcatt ccgtaaagta aacatcatca tcttggtcct ggctgttgct 200
 ctcttcttac tgggttttgca ccataacttc ctcagcttga gcagtttggt 250
 aaggaatgag gttacagatt caggaattgt agggcctcaa cctatagact 300
 ttgtcccaaa tgctctccga catgcagtag atgggagaca agaggagatt 350

cctgtggtca tcgctgcatc tgaagacagg cttggggggg ccattgcagc 400
tataaacagc attcagcaca acactcgctc caatgtgatt ttctacattg 450
ttactctcaa caatacagca gaccatctcc ggtcctggct caacagtgat 500
tccttgaaaa gcatcagata caaaattgtc aattttgacc ctaaactttt 550
ggaaggaaaa gtaaaggagg atcctgacca gggggaatcc atgaaacctt 600
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ataaatatgt ctccatctgc cttaccaagt gttttcttac tacaatgctg 1500
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<210> 171
<211> 371
<212> PRT
<213> Homo sapiens
<400> 171

Met	Ser	Phe	Arg	Lys	Val	Asn	Ile	Ile	Ile	Leu	Val	Leu	Ala	Val	1	5	10	15
Ala	Leu	Phe	Leu	Leu	Val	Leu	His	His	Asn	Phe	Leu	Ser	Leu	Ser	20	25	30	
Ser	Leu	Leu	Arg	Asn	Glu	Val	Thr	Asp	Ser	Gly	Ile	Val	Gly	Pro	35	40	45	
Gln	Pro	Ile	Asp	Phe	Val	Pro	Asn	Ala	Leu	Arg	His	Ala	Val	Asp	50	55	60	
Gly	Arg	Gln	Glu	Glu	Ile	Pro	Val	Val	Ile	Ala	Ala	Ser	Glu	Asp	65	70	75	
Arg	Leu	Gly	Gly	Ala	Ile	Ala	Ala	Ile	Asn	Ser	Ile	Gln	His	Asn	80	85	90	
Thr	Arg	Ser	Asn	Val	Ile	Phe	Tyr	Ile	Val	Thr	Leu	Asn	Asn	Thr	95	100	105	
Ala	Asp	His	Leu	Arg	Ser	Trp	Leu	Asn	Ser	Asp	Ser	Leu	Lys	Ser	110	115	120	
Ile	Arg	Tyr	Lys	Ile	Val	Asn	Phe	Asp	Pro	Lys	Leu	Leu	Glu	Gly	125	130	135	
Lys	Val	Lys	Glu	Asp	Pro	Asp	Gln	Gly	Glu	Ser	Met	Lys	Pro	Leu	140	145	150	
Thr	Phe	Ala	Arg	Phe	Tyr	Leu	Pro	Ile	Leu	Val	Pro	Ser	Ala	Lys	155	160	165	
Lys	Ala	Ile	Tyr	Met	Asp	Asp	Asp	Val	Ile	Val	Gln	Gly	Asp	Ile	170	175	180	
Leu	Ala	Leu	Tyr	Asn	Thr	Ala	Leu	Lys	Pro	Gly	His	Ala	Ala	Ala	185	190	195	
Phe	Ser	Glu	Asp	Cys	Asp	Ser	Ala	Ser	Thr	Lys	Val	Val	Ile	Arg	200	205	210	
Gly	Ala	Gly	Asn	Gln	Tyr	Asn	Tyr	Ile	Gly	Tyr	Leu	Asp	Tyr	Lys	215	220	225	
Lys	Glu	Arg	Ile	Arg	Lys	Leu	Ser	Met	Lys	Ala	Ser	Thr	Cys	Ser	230	235	240	
Phe	Asn	Pro	Gly	Val	Phe	Val	Ala	Asn	Leu	Thr	Glu	Trp	Lys	Arg	245	250	255	
Gln	Asn	Ile	Thr	Asn	Gln	Leu	Glu	Lys	Trp	Met	Lys	Leu	Asn	Val	260	265	270	
Glu	Glu	Gly	Leu	Tyr	Ser	Arg	Thr	Leu	Ala	Gly	Ser	Ile	Thr	Thr	275	280	285	
Pro	Pro	Leu	Leu	Ile	Val	Phe	Tyr	Gln	Gln	His	Ser	Thr	Ile	Asp				

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tgcattttca gaagattgtg attcagcctc tactaaagtt gtcacccgtg 1000
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accctggctg gtagcatcac aacacctoct ctgcttatcg tattttatca 1250
acagcactct accatcgatc ctatgtggaa tgtccgccac cttggttcca 1300
gtgctggaaa acgatattca cctcagtttg taaaggctgc caagttactc 1350
cattggaatg gacatttgaa gccatgggga aggactgctt catatactga 1400
tgtttgggga aaaatggtat attccagacc caacaggcaa attcaaccta 1450

atccgaagat ataccgagat ctcaaacata aagtgaaca gaatttgaac 1500
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 tgtgtcagct aggtaaagat gacaaactgc cctgtctggc agtcagcttc 1650
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 tttcttacta caatgctgaa tgactggaaa gaagaactga tatggctagt 1750
 tcagctagct ggtacagata attcaaaact gctgttggtt ttaattttgt 1800
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 aaaaaaaaaa aaaaaa 1866

<210> 174
 <211> 823
 <212> DNA
 <213> Homo sapiens

<400> 174
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 ctcaccattg aggagctcc actgtctgtg ctggctctgag ggtgctgcct 150
 gtcatggggg cagccatctc ccaggggggc ctcctcgcca tcgtctgcaa 200
 cggctctctg ggcttcttgc tgctgctgct ctgggtcctc ctctgctggg 250
 cctgccattc tcgtctgccg acgttgactc tctctctgaa tccagtccca 300
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 agccatgaag gcagctacct gctgcagccc tgaaggcccc tggcctagcc 400
 tggagcccag gacctaagtc cacctcacct agagcctgga attaggatcc 450
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 gctggacca gcgcccaga gtctagccag cttggctcca ataggagctc 550
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 gagccagggc catctggact atgctccatc ccaagggccca aggtcaggg 650
 gccgggtcca ctctttccct aggctgagca cctctaggcc ctctaggttg 700
 gggaagcaaa ctggaaccca tggcaataat aggaggggtgt ccaggctggg 750
 cccctcccct ggtcctccca gtgtttgctg gataataaat ggaactatgg 800
 ctctaaaaaa aaaaaaaaaa aaa 823

<210> 175
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 175
 Met Gly Ala Ala Ile Ser Gln Gly Ala Leu Ile Ala Ile Val Cys
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 Asn Gly Leu Val Gly Phe Leu Leu Leu Leu Leu Trp Val Ile Leu
 20 25 30
 Cys Trp Ala Cys His Ser Arg Leu Pro Thr Leu Thr Leu Ser Leu
 35 40 45
 Asn Pro Val Pro Thr Pro Ala Leu Ala Pro Val Leu Arg Arg Pro
 50 55 60
 His His Pro Arg Ser Pro Ala Met Lys Ala Ala Thr Cys Cys Ser
 65 70 75
 Pro Glu Gly Pro Trp Pro Ser Leu Glu Pro Arg Thr
 80 85

<210> 176
 <211> 1660
 <212> DNA
 <213> Homo sapiens

<400> 176
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 atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200
 gatacaatcc ttggcctgtg tatcctcgca ttagccttgt ctttggccat 250
 gatgtttacc ttcagattca tcaccaccct tctggttcac attttcattt 300
 cattggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350
 tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400
 aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcacacagg 450
 cagtgtgct cgtcttgatt tttgtttctca gaaagagaat aaaattgaca 500
 gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550
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 agaagtaaaa atgatcctcc tgatcatccc atcctttcgt ctctctccat 850
 tctcttcttc taccatcaag gaaccgttgt gaaaggggtca tttttaatct 900
 ctgtgggtgag gattccgaga atcattgtca tgtacatgca aaacgcactg 950
 aaagaacagc agcatgggtgc attgtccagg tacctgttcc gatgctgcta 1000
 ctgctgtttc tgggtgtcttg acaaatacct gctccatctc aaccagaatg 1050
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 gatgcattca aaatcttgtc caagaactca agtcacttta catctattaa 1150
 ctgcttttga gacttcataa tttttctagg aaaggtgtta gtggtgtgtt 1200
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 gtgtgggcag tcctctctgtt attggtagct ttttttgcct acttagtagc 1300
 ccatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttcctgt 1350
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 tttatggatc aagaatttct gagtttcgta aaaaggagca acaaattaaa 1450
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 cagaactcca ggccattgtg agatagatac ccatttaggt atctgtacct 1550
 ggaaaacatt tccttctaag agccatttac agaatagaag atgagaccac 1600
 tagagaaaag ttagtgaatt tttttttaa agacctaata aaccctattc 1650
 ttctcaaaa 1660

<210> 177
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 177
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 20 25 30
 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu
 35 40 45
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
				65					70					75	
Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
				215					220					225	
His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
				245					250					255	
Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
				290					295					300	
Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	
Ala	Phe	Asn	Tyr	Asn	Arg	Ala	Phe	Gln	Val	Trp	Ala	Val	Pro	Leu	

350	355	360
Leu Leu Val Ala Phe Phe Ala Tyr Leu Val Ala His Ser Phe Leu		
365	370	375
Ser Val Phe Glu Thr Val Leu Asp Ala Leu Phe Leu Cys Phe Ala		
380	385	390
Val Asp Leu Glu Thr Asn Asp Gly Ser Ser Glu Lys Pro Tyr Phe		
395	400	405
Met Asp Gln Glu Phe Leu Ser Phe Val Lys Arg Ser Asn Lys Leu		
410	415	420
Asn Asn Ala Arg Ala Gln Gln Asp Lys His Ser Leu Arg Asn Glu		
425	430	435
Glu Gly Thr Glu Leu Gln Ala Ile Val Arg		
440	445	

<210> 178
 <211> 2773
 <212> DNA
 <213> Homo sapiens

<400> 178
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 aagggaaaaa gaatattcat tctgtgtggt gaaaattttt tgaaaaaaaa 150
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 actggagtac attcaaacaa agaaacggca aagaagatta aaaggcccaa 300
 gttcactgtg ctcagatca actgcgatgt caaagccgga aagatcatcg 350
 atcctgagtt cattgtgaaa tgtccagcag gatgccaaga ccccaaatac 400
 catgtttatg gcactgacgt gtatgcatcc tactccagtg tgtgtggcgc 450
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 caatcgttat ccctaccacg atggagagaa tccttttatcg tcttagaaaag 600
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 aaagaagaat tgagcacaca gtctttggag ccagtatccc tgggagatcc 1050
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<210> 179
 <211> 678
 <212> PRT
 <213> Homo sapiens

<400> 179
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 Phe Leu Val Leu Leu Val Thr Gly Val His Ser Asn Lys Glu Thr
 20 25 30
 Ala Lys Lys Ile Lys Arg Pro Lys Phe Thr Val Pro Gln Ile Asn
 35 40 45
 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val
 50 55 60
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly
 65 70 75
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val
 80 85 90
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg
 95 100 105
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly
 110 115 120
 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val
 125 130 135
 Leu Glu Ser Lys Pro Lys Lys Gly Val Thr Tyr Pro Ser Ala Leu
 140 145 150

Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr		
				155					160					165		
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln		
				170					175					180		
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala		
				185					190					195		
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr		
				200					205					210		
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu		
				215					220					225		
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg		
				230					235					240		
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala		
				245					250					255		
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val		
				260					265					270		
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu		
				275					280					285		
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly		
				290					295					300		
Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu		
				305					310					315		
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro		
				320					325					330		
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe		
				335					340					345		
Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile		
				350					355					360		
Glu	Lys	Ile	Thr	Gln	Arg	Gly	Gly	Leu	Ser	Asn	Val	Gly	Arg	Ala		
				365					370					375		
Ile	Ser	Phe	Val	Thr	Lys	Asn	Phe	Phe	Ser	Lys	Ala	Asn	Gly	Asn		
				380					385					390		
Arg	Ser	Gly	Ala	Pro	Asn	Val	Val	Val	Val	Met	Val	Asp	Gly	Trp		
				395					400					405		
Pro	Thr	Asp	Lys	Val	Glu	Glu	Ala	Ser	Arg	Leu	Ala	Arg	Glu	Ser		
				410					415					420		
Gly	Ile	Asn	Ile	Phe	Phe	Ile	Thr	Ile	Glu	Gly	Ala	Ala	Glu	Asn		
				425					430					435		
Glu	Lys	Gln	Tyr	Val	Val	Glu	Pro	Asn	Phe	Ala	Asn	Lys	Ala	Val		

440	445	450
Cys Arg Thr Asn Gly Phe Tyr Ser Leu	His Val Gln Ser Trp Phe	
455	460	465
Gly Leu His Lys Thr Leu Gln Pro Leu	Val Lys Arg Val Cys Asp	
470	475	480
Thr Asp Arg Leu Ala Cys Ser Lys Thr	Cys Leu Asn Ser Ala Asp	
485	490	495
Ile Gly Phe Val Ile Asp Gly Ser Ser	Ser Val Gly Thr Gly Asn	
500	505	510
Phe Arg Thr Val Leu Gln Phe Val Thr	Asn Leu Thr Lys Glu Phe	
515	520	525
Glu Ile Ser Asp Thr Asp Thr Arg Ile	Gly Ala Val Gln Tyr Thr	
530	535	540
Tyr Glu Gln Arg Leu Glu Phe Gly Phe	Asp Lys Tyr Ser Ser Lys	
545	550	555
Pro Asp Ile Leu Asn Ala Ile Lys Arg	Val Gly Tyr Trp Ser Gly	
560	565	570
Gly Thr Ser Thr Gly Ala Ala Ile Asn	Phe Ala Leu Glu Gln Leu	
575	580	585
Phe Lys Lys Ser Lys Pro Asn Lys Arg	Lys Leu Met Ile Leu Ile	
590	595	600
Thr Asp Gly Arg Ser Tyr Asp Asp Val	Arg Ile Pro Ala Met Ala	
605	610	615
Ala His Leu Lys Gly Val Ile Thr Tyr	Ala Ile Gly Val Ala Trp	
620	625	630
Ala Ala Gln Glu Glu Leu Glu Val Ile	Ala Thr His Pro Ala Arg	
635	640	645
Asp His Ser Phe Phe Val Asp Glu Phe	Asp Asn Leu His Gln Tyr	
650	655	660
Val Pro Arg Ile Ile Gln Asn Ile Cys	Thr Glu Phe Asn Ser Gln	
665	670	675

Pro Arg Asn

<210> 180

<211> 1759

<212> DNA

<213> Homo sapiens

<400> 180

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 cagaaggtcc cacttctcag ctgccccagt cagcccttca cctccaagtt 1650
 ggcattactg ggacaggttt tcttagactc ctcataacca ctggataatt 1700
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 atcataaaa 1759

<210> 181
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 181
 Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu
 1 5 10 15
 Leu Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro
 20 25 30
 Asp Pro Ala His Tyr Ser Phe Ser Leu Thr Leu Ile Asp Ala Leu
 35 40 45
 Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg Val
 50 55 60
 Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
 65 70 75
 Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu
 80 85 90
 Ser Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala
 95 100 105
 Gly Trp Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala
 110 115 120
 Ala Arg Lys Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro
 125 130 135
 Tyr Gly Thr Val Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr
 140 145 150
 Pro Val Thr Cys Thr Ala Gly Ile Gly Thr Phe Ile Val Glu Phe
 155 160 165
 Ala Thr Leu Ser Ser Leu Thr Gly Asp Pro Val Phe Glu Asp Val
 170 175 180
 Ala Arg Val Ala Leu Met Arg Leu Trp Glu Ser Arg Ser Asp Ile
 185 190 195
 Gly Leu Val Gly Asn His Ile Asp Val Leu Thr Gly Lys Trp Val

				200					205					210
Ala	Gln	Asp	Ala	Gly 215	Ile	Gly	Ala	Gly	Val	Asp	Ser	Tyr	Phe	Glu 225
Tyr	Leu	Val	Lys	Gly 230	Ala	Ile	Leu	Leu	Gln	Asp	Lys	Lys	Leu	Met 240
Ala	Met	Phe	Leu	Glu 245	Tyr	Asn	Lys	Ala	Ile	Arg	Asn	Tyr	Thr	Arg 255
Phe	Asp	Asp	Trp	Tyr 260	Leu	Trp	Val	Gln	Met	Tyr	Lys	Gly	Thr	Val 270
Ser	Met	Pro	Val	Phe 275	Gln	Ser	Leu	Glu	Ala	Tyr	Trp	Pro	Gly	Leu 285
Gln	Ser	Leu	Ile	Gly 290	Asp	Ile	Asp	Asn	Ala	Met	Arg	Thr	Phe	Leu 300
Asn	Tyr	Tyr	Thr	Val 305	Trp	Lys	Gln	Phe	Gly 310	Gly	Leu	Pro	Glu	Phe 315
Tyr	Asn	Ile	Pro	Gln 320	Gly	Tyr	Thr	Val	Glu 325	Lys	Arg	Glu	Gly	Tyr 330
Pro	Leu	Arg	Pro	Glu 335	Leu	Ile	Glu	Ser	Ala 340	Met	Tyr	Leu	Tyr	Arg 345
Ala	Thr	Gly	Asp	Pro 350	Thr	Leu	Leu	Glu	Leu 355	Gly	Arg	Asp	Ala	Val 360
Glu	Ser	Ile	Glu	Lys 365	Ile	Ser	Lys	Val	Glu 370	Cys	Gly	Phe	Ala	Thr 375
Ile	Lys	Asp	Leu	Arg 380	Asp	His	Lys	Leu	Asp 385	Asn	Arg	Met	Glu	Ser 390
Phe	Phe	Leu	Ala	Glu 395	Thr	Val	Lys	Tyr	Leu 400	Tyr	Leu	Leu	Phe	Asp 405
Pro	Thr	Asn	Phe	Ile 410	His	Asn	Asn	Gly	Ser 415	Thr	Phe	Asp	Ala	Val 420
Ile	Thr	Pro	Tyr	Gly 425	Glu	Cys	Ile	Leu	Gly 430	Ala	Gly	Gly	Tyr	Ile 435
Phe	Asn	Thr	Glu	Ala 440	His	Pro	Ile	Asp	Leu 445	Ala	Ala	Leu	His	Cys 450
Cys	Gln	Arg	Leu	Lys 455	Glu	Glu	Gln	Trp	Glu 460	Val	Glu	Asp	Leu	Met 465
Arg	Glu	Phe	Tyr	Ser 470	Leu	Lys	Arg	Ser	Arg 475	Ser	Lys	Phe	Gln	Lys 480
Asn	Thr	Val	Ser	Ser 485	Gly	Pro	Trp	Glu	Pro 490	Pro	Ala	Arg	Pro	Gly 495

Thr Leu Phe Ser Pro Glu Asn His Asp Gln Ala Arg Glu Arg Lys
500 505 510

Pro Ala Lys Gln Lys Val Pro Leu Leu Ser Cys Pro Ser Gln Pro
515 520 525

Phe Thr Ser Lys Leu Ala Leu Leu Gly Gln Val Phe Leu Asp Ser
530 535 540

Ser

<210> 182
<211> 2056
<212> DNA
<213> Homo sapiens

<400> 182
aaagttacat tttctctgga actctcctag gccactccct gctgatgcaa 50
catctggggt tgggcagaaa ggaggggtgct tcggagcccg ccctttctga 100
gcttcctggg ccggtcttag aacaattcag gcttcgctgc gactcagacc 150
tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
gctttatttt ggaaagaaac aatgttctag gtcaaactga gtctaccaa 250
tgcagacttt cacaatgggt ctagaagaaa tctggacaag tcttttcatg 300
tggtttttct acgcattgat tccatgtttg ctcacagatg aagtggccat 350
tctgcctgcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
tcttgatgtg gagcccagtg atcgcgcctg gagaaacagt gtactattct 450
gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
ccccagcagc tgggtgtcac tcaactgaagg tcttgagtgt gatgtcactg 550
atgacatcac ggccactgtg ccatacaacc ttcgtgtcag ggccacattg 600
ggctcacaga cctcagcctg gagcatcctg aagcatccct ttaatagaaa 650
ctcaaccatc cttacccgac ctgggatgga gatcaccaa gatggcttcc 700
acctgggtat tgagctggag gacctggggc ccagtttga gttccttgtg 750
gcctactgga ggagggagcc tgggtgccgag gaacatgtca aaatggtgag 800
gagtgggggt attccagtgc acctagaaac catggagcca ggggctgcat 850
actgtgtgaa ggcccagaca ttcgtgaagg ccattgggag gtacagcgcc 900
ttcagccaga cagaatgtgt ggaggtgcaa ggagaggcca tccccctggt 950
actggccctg tttgcctttg ttggcttcat gctgacctt gtggtcgtgc 1000

cactgttcgt ctggaaaatg ggccggctgc tccagtactc ctgttgcccc 1050
 gtggtgggtcc tcccagacac cttgaaaata accaattcac cccagaagtt 1100
 aatcagctgc agaagggagg aggtggatgc ctgtgccacg gctgtgatgt 1150
 ctctgagga actcctcagg gcctggatct cataggtttg cggaagggcc 1200
 caggtgaagc cgagaacctg gtctgcatga catggaaacc atgaggggac 1250
 aagttgtgtt tctgttttcc gccacggaca agggatgaga gaagtaggaa 1300
 gagcctgttg tctacaagtc tagaagcaac catcagaggc aggggtggtt 1350
 gtctaacaga aactgactg aggccttaggg gatgtgacct ctagactggg 1400
 ggctgccact tgctggctga gcaaccctgg gaaaagtgc ttcattccctt 1450
 cggctctaag ttttctcatc tgtaatgggg gaattaccta cacacctgct 1500
 aaacacacac acacagagtc tctctctata tatacacacg tacacataaa 1550
 tacaccagc acttgcaagg ctgagaggaa actggtgaca ctctacagtc 1600
 tgactgattc agtgtttctg gagagcagga cataaatgta tgatgagaat 1650
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 caagcccaat gccggtgcag aggggaatgg cttagcgagc tctacagtag 1800
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 acggaggatc catgaactac tgtaaagtgt tgacagtgtg tgcacactgc 1900
 agacagcagg tgaaatgtat gtgtgcaatg cgacgagaat gcagaagtca 1950
 gtaacatgtg catgtttgtt gtgtctcttt tttctgttgg taaagtacag 2000
 aattcagcaa ataaaaaggg ccaccctggc caaaagcggg aaaaaaaaaa 2050
 aaaaaa 2056

<210> 183
 <211> 311
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> Signal peptide
 <222> 1-29
 <223> Signal peptide

 <220>
 <221> N-glycosylation sites
 <222> 40-43, 134-137
 <223> N-glycosylation sites.

<220>
 <221> Tissue factor proteins homology
 <222> 92-119
 <223> Tissue factor proteins homology

 <220>
 <221> Transmembrane domain
 <222> 230-255
 <223> Transmembrane domain

 <220>
 <221> Integrins alpha chain protein homology
 <222> 232-262
 <223> Integrins alpha chain protein homology

<400> 183
 Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr Ser Leu
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 Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp
 20 25 30
 Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
 35 40 45
 Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro
 50 55 60
 Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
 65 70 75
 Ser Leu Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser
 80 85 90
 Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala
 95 100 105
 Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
 110 115 120
 Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser
 125 130 135
 Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe
 140 145 150
 His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe
 155 160 165
 Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu His Val
 170 175 180
 Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr Met
 185 190 195
 Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
 200 205 210

Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu
				215					220					225
Val	Gln	Gly	Glu	Ala	Ile	Pro	Leu	Val	Leu	Ala	Leu	Phe	Ala	Phe
				230					235					240
Val	Gly	Phe	Met	Leu	Ile	Leu	Val	Val	Val	Pro	Leu	Phe	Val	Trp
				245					250					255
Lys	Met	Gly	Arg	Leu	Leu	Gln	Tyr	Ser	Cys	Cys	Pro	Val	Val	Val
				260					265					270
Leu	Pro	Asp	Thr	Leu	Lys	Ile	Thr	Asn	Ser	Pro	Gln	Lys	Leu	Ile
				275					280					285
Ser	Cys	Arg	Arg	Glu	Glu	Val	Asp	Ala	Cys	Ala	Thr	Ala	Val	Met
				290					295					300
Ser	Pro	Glu	Glu	Leu	Leu	Arg	Ala	Trp	Ile	Ser				
				305					310					

<210> 184
 <211> 808
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 654, 711, 748
 <223> unknown base

<400> 184
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 tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150
 agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200
 ccaaactcag actttcacaa tgggttctaga agaaatctgg acaagtcttt 250
 tcatgtgggtt tttctacgca ttgattccat gtttgctcac agatgaagtg 300
 gccattctgc ctgcccctca gaacctctct gtactctcaa ccaacatgaa 350
 gcactctcttg atgtggagcc cagtgatcgc gcctggagaa acagtgtact 400
 attctgtcga ataccagggg gagtacgaga gcctgtacac gagccacatc 450
 tggatcccca gcagctggtg ctactcact gaaggtcctg agtgtgatgt 500
 cactgatgac atcacggcca ctgtgccata caacctttgt gtcagggcca 550
 cattgggctc acagacctca gcctggagca tcctgaagca tccctttaat 600
 agaaactcaa ccatccttac ccgacctggg atggagatca ccaaagatgg 650

cttncacctg gttattgagc tggaggacct ggggccccag tttgagttcc 700
 ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
 gaacccttg cggccgctgg ggtatctctc gagaaaagag aggcccaata 800
 tgaccac 808

<210> 185
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 185
 aggcttcgct gcgactagac ctc 23

<210> 186
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 186
 ccaggtcggg taaggatggt tgag 24

<210> 187
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 187
 tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 188
 <211> 1227
 <212> DNA
 <213> Homo sapiens

<400> 188
 cggacgcgtg ggccgccacc tccggaacaa gccatggtgg cggcgacggt 50
 ggcagcggcg tggetgctcc tgtgggctgc ggcctgcgcg cagcaggagc 100
 aggacttcta cgacttcaag gcggtcaaca tccggggcaa actggtgtcg 150
 ctggagaagt accgcggatc ggtgtccctg gtggtgaatg tggccagcga 200
 gtgcggcttc acagaccagc actaccgagc cctgcagcag ctgcagcgag 250
 acctgggccc ccaccacttt aacgtgctcg cttccctcctg caaccagttt 300

Pro	His	His	Phe	Asn	Val	Leu	Ala	Phe	Pro	Cys	Asn	Gln	Phe	Gly
				80					85					90
Gln	Gln	Glu	Pro	Asp	Ser	Asn	Lys	Glu	Ile	Glu	Ser	Phe	Ala	Arg
				95					100					105
Arg	Thr	Tyr	Ser	Val	Ser	Phe	Pro	Met	Phe	Ser	Lys	Ile	Ala	Val
				110					115					120
Thr	Gly	Thr	Gly	Ala	His	Pro	Ala	Phe	Lys	Tyr	Leu	Ala	Gln	Thr
				125					130					135
Ser	Gly	Lys	Glu	Pro	Thr	Trp	Asn	Phe	Trp	Lys	Tyr	Leu	Val	Ala
				140					145					150
Pro	Asp	Gly	Lys	Val	Val	Gly	Ala	Trp	Asp	Pro	Thr	Val	Ser	Val
				155					160					165
Glu	Glu	Val	Arg	Pro	Gln	Ile	Thr	Ala	Leu	Val	Arg	Lys	Leu	Ile
				170					175					180
Leu	Leu	Lys	Arg	Glu	Asp	Leu								
				185										

<210> 190
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 190
 gcaggacttc tacgacttca aggc 24

<210> 191
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 191
 agtctggggcc aggtacttga aggc 24

<210> 192
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 192
 caacatccgg ggcaaactgg tgtcgctgga gaagtaccgc ggatcggtgt 50

<210> 193

<211> 2187
 <212> DNA
 <213> Homo sapiens

<400> 193
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 acgtcgggat gctgcgcctg gggaggctgt gcgccgggag ctccgggggtg 100
 ctggggggccc gggccgccct ctctcggagt tggcaggaag ccaggttgca 150
 ggggtgtccgc ttcctcagtt ccagagaggt ggatcgcatt gtctccacgc 200
 ccatcggagg cctcagctac gtccaggggt gcacaaaaaa gcatcttaac 250
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 acgagaggcc ttggtcgtcc tocatgaaga cgtcagggtg acctttgccc 350
 aactcaagga ggaggtggac aaagctgctt ctggcctcct gagcattggc 400
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 ggtgctcatg cagttggcca ccgccaggc gggcatcatt ctggtgtctg 500
 tgaaccagc ctaccaggct atggaactgg agtatgtcct caagaagggtg 550
 ggctgcaagg cccttgtgtt cccaagcaa ttcaagacc agcaatacta 600
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 gcccctttgc cggggaccct gctcctggat gaagtgggtg cggctggcag 750
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 aagggggcca ccctctccca ctacaacatt gtcaacaact ccaacatttt 900
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 tggcaagaag gactcggagg ccatcagcag agagagaggc accttcctgt 1100
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ccctcctgtc catccccac attccctgt ctgtccttgt gatttggcat 2150
aaagagcttc tgttttcttt gaaaaaaaaa aaaaaaa 2187

<210> 194

<211> 615

<212> PRT

<213> Homo sapiens

<400> 194

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Gly	Ser	Ser	Gly	Val	Leu	Gly	Ala	Arg	Ala	Ala	Leu	Ser	Arg	Ser
				20					25				30	
Trp	Gln	Glu	Ala	Arg	Leu	Gln	Gly	Val	Arg	Phe	Leu	Ser	Ser	Arg
				35					40				45	
Glu	Val	Asp	Arg	Met	Val	Ser	Thr	Pro	Ile	Gly	Gly	Leu	Ser	Tyr
				50					55				60	
Val	Gln	Gly	Cys	Thr	Lys	Lys	His	Leu	Asn	Ser	Lys	Thr	Val	Gly
				65					70				75	
Gln	Cys	Leu	Glu	Thr	Thr	Ala	Gln	Arg	Val	Pro	Glu	Arg	Glu	Ala
				80					85				90	

ctctcccatc ttcaatggca agaaggcact ggaggccatc agcagagaga 200
gaggcacctt cctgtatggg acccccacga tgttcgtgga cattctgaac 250
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tgctgggtcc cctgcacctc cagagttgat ccgagccatc atcaacaaga 350
taaatatgaa ggacctgggt gttgcttatg gaaccacaga gaacagtccc 400
gtgacattcg cgcacttccc tgaggacact gtggagcaga aggcagaaaag 450
cgtgggcaga attatgcctc acacggaggc gcggatcatg aacatggagg 500
cagggacgct ggcaaagctg aacacgcccg gggagctgtg catccgaggg 550
tactgcgtca tgctgggcta ctggggtgag cctcagaaga cagaggaagc 600
agtggatcag gacaagtggg attggacagg agatgtcgcc ac 642

<210> 196
<211> 1575
<212> DNA
<213> Homo sapiens

<400> 196
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aggccctgga gtgctacagc tgcgtgcaga aagcagatga cggatgctcc 150
ccgaacaaga tgaagacagt gaagtgcgcg ccgggcgtgg acgtctgcac 200
cgaggccgtg gggggcgggtg agaccatcca cggacaattc tcgctggcag 250
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cttcacgggc ttctggcggt catccagctg cagcaatgcg ctgaggatcg 350
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ctgagccggg aggcgtgccg gggtagatcg ccgccggtcg tgagctgcta 500
caacgccagc gatcatgtct acaagggctg cttcgacggc aacgtcacct 550
tgacggcagc taatgtgact gtgtccttgc ctgtccgggg ctgtgtccag 600
gatgaattct gcaactcggga tggagtaaca ggcccagggt tcacgctcag 650
tggctcctgt tgccaggggt cccgctgtaa ctctgacctc cgcaacaaga 700
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cccacgactg tggcctcaac cacatctgtc accacttcta cctcggtccc 800

acgccatgga gttggtgctg gtcttcctct gcagcctgct ggcccccatg 100
gtcctggcca gtgcagctga aaaggagaag gaaatggacc cttttcatta 150
tgattaccag accctgagga ttgggggact ggtgttcgct gtggtcctct 200
tctcggtttg gatcctcctt atcctaagtc gcagggtgcaa gtgcagtttc 250
aatcagaagc cccggggccc aggagatgag gaagcccagg tggagaacct 300
catcaccgcc aatgcaacag agccccagaa gcagagaact gaagtgcagc 350
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ccaggagaag ccaagaactt gtgtgtcccc caccctatcc cctctaacac 500
cattcctcca cctgatgatg caactaacac ttgcctcccc actgcagcct 550
goggtcctgc ccacctccc tgatgtgtgt gtgtgtgtgt gtgtgtgact 600
gtgtgtgttt gctaactgtg gtctttgtgg ctacttgttt gtggatggta 650
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cacatggcca tctgtcctc cctgcccccg tggccctcca tcaccttctg 750
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tggaaggtt tgcagcactt tgtcatcatt cttcatggac tcctttcact 900
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 gtttct 1657

<210> 199
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 199
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 Val Leu Ala Ser Ala Ala Glu Lys Glu Lys Glu Met Asp Pro Phe
 20 25 30
 His Tyr Asp Tyr Gln Thr Leu Arg Ile Gly Gly Leu Val Phe Ala
 35 40 45
 Val Val Leu Phe Ser Val Gly Ile Leu Leu Ile Leu Ser Arg Arg
 50 55 60
 Cys Lys Cys Ser Phe Asn Gln Lys Pro Arg Ala Pro Gly Asp Glu
 65 70 75
 Glu Ala Gln Val Glu Asn Leu Ile Thr Ala Asn Ala Thr Glu Pro
 80 85 90
 Gln Lys Gln Arg Thr Glu Val Gln Pro Ser Gly Gly Ser Leu Trp
 95 100 105
 Asn Leu Arg Arg Leu Leu Glu Pro Leu Asp Ala Asn Val Asp Ala
 110 115 120

<210> 200
 <211> 415
 <212> DNA
 <213> Homo sapiens

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 aagaaagcac cattgagaat tatgcgtcac gacccgaggc ctttaacacc 150
 ccgttcctga acatcgacaa attgcgatct gcgtttaagg ctgatgagtt 200
 cctgaactgg cagccctctt ttgagtctat caaaaggaaa cttcctttcc 250
 tcaactggga tgcctttcct aagctgaaag gactgaggag cgcaactcct 300
 gatgccagtg gaccatgacc tccactggaa gagggggcta gcgtgagcgc 350

tgattctcaa cctaccataa ctctttcctg cctcaggaac tccaataaaa 400
 cattttccat ccaaa 415

<210> 201
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 201
 Met Lys Ile Pro Val Leu Pro Ala Val Val Leu Leu Ser Leu Leu
 1 5 10 15
 Val Leu His Ser Ala Gln Gly Ala Thr Leu Gly Gly Pro Glu Glu
 20 25 30
 Glu Ser Thr Ile Glu Asn Tyr Ala Ser Arg Pro Glu Ala Phe Asn
 35 40 45
 Thr Pro Phe Leu Asn Ile Asp Lys Leu Arg Ser Ala Phe Lys Ala
 50 55 60
 Asp Glu Phe Leu Asn Trp His Ala Leu Phe Glu Ser Ile Lys Arg
 65 70 75
 Lys Leu Pro Phe Leu Asn Trp Asp Ala Phe Pro Lys Leu Lys Gly
 80 85 90
 Leu Arg Ser Ala Thr Pro Asp Ala Gln
 95

<210> 202
 <211> 678
 <212> DNA
 <213> Homo sapiens

<400> 202
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 cagcaggagt ctcccagggt gttcttctcc agccagttcc aactcaggag 150
 acaggtccca aggccatggg agatctctcc tgtggctttg ccggccactc 200
 atgagagtgt ttttgtgtaa agtatttttt agaatactgt tgacttcttc 250
 atgatttaat aaccatcctt tgcaagttt tatgaggctt taggggaatg 300
 tcaaccctca aatttttgtt atactagatg gcttccattt acccaccact 350
 attttaaggt ccctttatct ttaggttcaa ggttcatttg acttgagaaa 400
 gtgcccttct gcagcttcat tgattttgtt tatcttcact attaattgta 450
 acgattaaaa aagaataaga gcacgcagac ctctaggaga atattttatc 500
 cctgggtgcc cctgacacat ttatgtagtg atcccacaaa tgtgattgtt 550

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aatttaaattg ttatttctaatt attagtacat tcagttgtga tgtaatatga 600
 ataaccagaa tctatttctt aaaagttttg agtatatttt tcaactagat 650
 atttgatatag aaagactgaa tagtgatg 678

<210> 203
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 203
 Met Gly Val Glu Ile Ala Phe Ala Ser Val Ile Leu Thr Cys Leu
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 Ser Leu Leu Ala Ala Gly Val Ser Gln Val Val Leu Leu Gln Pro
 20 25 30
 Val Pro Thr Gln Glu Thr Gly Pro Lys Ala Met Gly Asp Leu Ser
 35 40 45
 Cys Gly Phe Ala Gly His Ser
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<210> 204
 <211> 1917
 <212> DNA
 <213> Homo sapiens

<400> 204
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 agaaggagtc aggttcaaaa tggaaagtat ttattgacca aattaacagg 150
 tctttggaga attacgaacc atgttcaagt caaaactgca gctgctacca 200
 tgggtgtcata gaagaggatc taactccttt ccgaggaggc atctccagga 250
 agatgatggc agaggtagtc agacggaagc tagggaccca ctatcagatc 300
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 tggagatggg gatcaatgta cgagattatc ctcagggttcc taaatggatg 450
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 cgagaaggaa aggttatgat caaattattc ccaaaatggt gaaaactgaa 1200
 ctatagtagt catcatagga ccatagtcct ctttgtggca acagatctca 1250
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 gcctctctaa agccaaa 1917

<210> 205
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 205
 Met Glu Trp Trp Ala Ser Ser Pro Leu Arg Leu Trp Leu Leu Leu
 1 5 10 15

Phe	Leu	Leu	Pro	Ser	Ala	Gln	Gly	Arg	Gln	Lys	Glu	Ser	Gly	Ser		20	25	30
Lys	Trp	Lys	Val	Phe	Ile	Asp	Gln	Ile	Asn	Arg	Ser	Leu	Glu	Asn		35	40	45
Tyr	Glu	Pro	Cys	Ser	Ser	Gln	Asn	Cys	Ser	Cys	Tyr	His	Gly	Val		50	55	60
Ile	Glu	Glu	Asp	Leu	Thr	Pro	Phe	Arg	Gly	Gly	Ile	Ser	Arg	Lys		65	70	75
Met	Met	Ala	Glu	Val	Val	Arg	Arg	Lys	Leu	Gly	Thr	His	Tyr	Gln		80	85	90
Ile	Thr	Lys	Asn	Arg	Leu	Tyr	Arg	Glu	Asn	Asp	Cys	Met	Phe	Pro		95	100	105
Ser	Arg	Cys	Ser	Gly	Val	Glu	His	Phe	Ile	Leu	Glu	Val	Ile	Gly		110	115	120
Arg	Leu	Pro	Asp	Met	Glu	Met	Val	Ile	Asn	Val	Arg	Asp	Tyr	Pro		125	130	135
Gln	Val	Pro	Lys	Trp	Met	Glu	Pro	Ala	Ile	Pro	Val	Phe	Ser	Phe		140	145	150
Ser	Lys	Thr	Ser	Glu	Tyr	His	Asp	Ile	Met	Tyr	Pro	Ala	Trp	Thr		155	160	165
Phe	Trp	Glu	Gly	Gly	Pro	Ala	Val	Trp	Pro	Ile	Tyr	Pro	Thr	Gly		170	175	180
Leu	Gly	Arg	Trp	Asp	Leu	Phe	Arg	Glu	Asp	Leu	Val	Arg	Ser	Ala		185	190	195
Ala	Gln	Trp	Pro	Trp	Lys	Lys	Lys	Asn	Ser	Thr	Ala	Tyr	Phe	Arg		200	205	210
Gly	Ser	Arg	Thr	Ser	Pro	Glu	Arg	Asp	Pro	Leu	Ile	Leu	Leu	Ser		215	220	225
Arg	Lys	Asn	Pro	Lys	Leu	Val	Asp	Ala	Glu	Tyr	Thr	Lys	Asn	Gln		230	235	240
Ala	Trp	Lys	Ser	Met	Lys	Asp	Thr	Leu	Gly	Lys	Pro	Ala	Ala	Lys		245	250	255
Asp	Val	His	Leu	Val	Asp	His	Cys	Lys	Tyr	Lys	Tyr	Leu	Phe	Asn		260	265	270
Phe	Arg	Gly	Val	Ala	Ala	Ser	Phe	Arg	Phe	Lys	His	Leu	Phe	Leu		275	280	285
Cys	Gly	Ser	Leu	Val	Phe	His	Val	Gly	Asp	Glu	Trp	Leu	Glu	Phe		290	295	300
Phe	Tyr	Pro	Gln	Leu	Lys	Pro	Trp	Val	His	Tyr	Ile	Pro	Val	Lys				

305	310	315
Thr Asp Leu Ser Asn Val Gln Glu Leu Leu Gln Phe Val Lys Ala		
320	325	330
Asn Asp Asp Val Ala Gln Glu Ile Ala Glu Arg Gly Ser Gln Phe		
335	340	345
Ile Arg Asn His Leu Gln Met Asp Asp Ile Thr Cys Tyr Trp Glu		
350	355	360
Asn Leu Leu Ser Glu Tyr Ser Lys Phe Leu Ser Tyr Asn Val Thr		
365	370	375
Arg Arg Lys Gly Tyr Asp Gln Ile Ile Pro Lys Met Leu Lys Thr		
380	385	390
Glu Leu		

<210> 206
 <211> 1425
 <212> DNA
 <213> Homo sapiens

<400> 206
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 tttacctcc ttcggccact tcttgagggt atcccgagt ctggtggtcc 150
 ggatgccgc cagggatggc tggctgccct gcaggaccgc agcatccttg 200
 cccctctggc atgggatctg gggctcctgc ttctatttgt tgggcagcac 250
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 ggtccttcag aggtcactgt atgtggcctg cactgccctg gccttgacgc 350
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 aaagtcagcc tttttctaaa aaaaa 1425

<210> 207
 <211> 262
 <212> PRT
 <213> Homo sapiens

<400> 207
 Met Ala Pro Ala Leu Leu Leu Ile Pro Ala Ala Leu Ala Ser Phe
 1 5 10 15
 Ile Leu Ala Phe Gly Thr Gly Val Glu Phe Val Arg Phe Thr Ser
 20 25 30
 Leu Arg Pro Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp
 35 40 45
 Ala Arg Gln Gly Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu
 50 55 60
 Ala Pro Leu Ala Trp Asp Leu Gly Leu Leu Leu Leu Phe Val Gly
 65 70 75
 Gln His Ser Leu Met Ala Ala Glu Arg Val Lys Ala Trp Thr Ser
 80 85 90
 Arg Tyr Phe Gly Val Leu Gln Arg Ser Leu Tyr Val Ala Cys Thr
 95 100 105
 Ala Leu Ala Leu Gln Leu Val Met Arg Tyr Trp Glu Pro Ile Pro
 110 115 120
 Lys Gly Pro Val Leu Trp Glu Ala Arg Ala Glu Pro Trp Ala Thr
 125 130 135

Trp	Val	Pro	Leu	Leu	Cys	Phe	Val	Leu	His	Val	Ile	Ser	Trp	Leu	140	145	150
Leu	Ile	Phe	Ser	Ile	Leu	Leu	Val	Phe	Asp	Tyr	Ala	Glu	Leu	Met	155	160	165
Gly	Leu	Lys	Gln	Val	Tyr	Tyr	His	Val	Leu	Gly	Leu	Gly	Glu	Pro	170	175	180
Leu	Ala	Leu	Lys	Ser	Pro	Arg	Ala	Leu	Arg	Leu	Phe	Ser	His	Leu	185	190	195
Arg	His	Pro	Val	Cys	Val	Glu	Leu	Leu	Thr	Val	Leu	Trp	Val	Val	200	205	210
Pro	Thr	Leu	Gly	Thr	Asp	Arg	Leu	Leu	Leu	Ala	Phe	Leu	Leu	Thr	215	220	225
Leu	Tyr	Leu	Gly	Leu	Ala	His	Gly	Leu	Asp	Gln	Gln	Asp	Leu	Arg	230	235	240
Tyr	Leu	Arg	Ala	Gln	Leu	Gln	Arg	Lys	Leu	His	Leu	Leu	Ser	Arg	245	250	255
Pro	Gln	Asp	Gly	Glu	Ala	Glu									260		

<210> 208
 <211> 2095
 <212> DNA
 <213> Homo sapiens

<400> 208
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 acgtggtgct ctccgactac tcaccccgag tgtaaagaac cttcggctcg 300
 cgtgcttctg agctgctgtg gatggcctcg gctctctgga ctgtccttcc 350
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 acaagacttt cacttcacac ttcgagagca ttcaaactgc tctcatcaaa 550
 atccatttct ggtcattctg gtgacctccc acccttcaga tgtgaaagcc 600
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tgaggttctt acatttttct tattaggcca agaggctgaa aaggaagaca 700
 aaatgttggc attgtcctta gaggatgaac accttcttta tggtagacata 750
 atccgacaag atttttttaga cacatataat aacctgacct tgaaaaccat 800
 tatggcattc aggtgggtaa ctgagttttg ccccaatgcc aagtacgtaa 850
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 tgataattat tcctatagag gatatttacca aaaaacccat atttcttacc 1000
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 gaaattaata ggaccaaaca atttggacat gtcattctgt agactagaat 1600
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 aacaatgtag agttttatatt attgaacaat gtagtcactt gaaggttttg 1700
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 tttaaaatta cttcaacttt gtgtttttta atgttttgac gatttcaata 1900
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950
 tacttaactg atcagtttat tattgatata tcactccatt aatgtaaagt 2000
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 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 209
 <211> 331
 <212> PRT
 <213> Homo sapiens

<400> 209

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu	Pro	Ser	Arg	Met	Ser	Leu	1	5	10	15
Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe	20	25	30	
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu	35	40	45	
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg	50	55	60	
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His	65	70	75	
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp	80	85	90	
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys	95	100	105	
Ser	Trp	Trp	Gly	Tyr	Glu	Val	Leu	Thr	Phe	Phe	Leu	Leu	Gly	Gln	110	115	120	
Glu	Ala	Glu	Lys	Glu	Asp	Lys	Met	Leu	Ala	Leu	Ser	Leu	Glu	Asp	125	130	135	
Glu	His	Leu	Leu	Tyr	Gly	Asp	Ile	Ile	Arg	Gln	Asp	Phe	Leu	Asp	140	145	150	
Thr	Tyr	Asn	Asn	Leu	Thr	Leu	Lys	Thr	Ile	Met	Ala	Phe	Arg	Trp	155	160	165	
Val	Thr	Glu	Phe	Cys	Pro	Asn	Ala	Lys	Tyr	Val	Met	Lys	Thr	Asp	170	175	180	
Thr	Asp	Val	Phe	Ile	Asn	Thr	Gly	Asn	Leu	Val	Lys	Tyr	Leu	Leu	185	190	195	
Asn	Leu	Asn	His	Ser	Glu	Lys	Phe	Phe	Thr	Gly	Tyr	Pro	Leu	Ile	200	205	210	
Asp	Asn	Tyr	Ser	Tyr	Arg	Gly	Phe	Tyr	Gln	Lys	Thr	His	Ile	Ser	215	220	225	
Tyr	Gln	Glu	Tyr	Pro	Phe	Lys	Val	Phe	Pro	Pro	Tyr	Cys	Ser	Gly	230	235	240	
Leu	Gly	Tyr	Ile	Met	Ser	Arg	Asp	Leu	Val	Pro	Arg	Ile	Tyr	Glu	245	250	255	
Met	Met	Gly	His	Val	Lys	Pro	Ile	Lys	Phe	Glu	Asp	Val	Tyr	Val				

260	265	270
Gly Ile Cys Leu Asn Leu Leu Lys Val	Asn Ile His Ile Pro Glu	
275	280	285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg	Ile His Leu Asp Val Cys	
290	295	300
Gln Leu Arg Arg Val Ile Ala Ala His	Gly Phe Ser Ser Lys Glu	
305	310	315
Ile Ile Thr Phe Trp Gln Val Met Leu	Arg Asn Thr Thr Cys His	
320	325	330

Tyr

<210> 210
 <211> 745
 <212> DNA
 <213> Homo sapiens

<400> 210
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 gtgtcaacaa tgaacacaat gtggccaatg ttgacaataa caacggatgg 200
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 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 211

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				20					25					30
Asn	Asn	Ala	Gly	Ser	Gly	Gln	Gln	Ser	Val	Ser	Val	Asn	Asn	Glu
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His	Asn	Val	Ala	Asn	Val	Asp	Asn	Asn	Asn	Gly	Trp	Asp	Ser	Trp
				50					55					60
Asn	Ser	Ile	Trp	Asp	Tyr	Gly	Asn	Gly	Phe	Ala	Ala	Thr	Arg	Leu
				65					70					75
Phe	Gln	Lys	Lys	Thr	Cys	Ile	Val	His	Lys	Met	Asn	Lys	Glu	Val
				80					85					90
Met	Pro	Ser	Ile	Gln	Ser	Leu	Asp	Ala	Leu	Val	Lys	Glu	Lys	Lys
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Leu	Gln	Gly	Lys	Gly	Pro	Gly	Gly	Pro	Pro	Pro	Lys	Gly	Leu	Met
				110					115					120
Tyr	Ser	Val	Asn	Pro	Asn	Lys	Val	Asp	Asp	Leu	Ser	Lys	Phe	Gly
				125					130					135
Lys	Asn	Ile	Ala	Asn	Met	Cys	Arg	Gly	Ile	Pro	Thr	Tyr	Met	Ala
				140					145					150
Glu	Glu	Met	Gln	Glu	Ala	Ser	Leu	Phe	Phe	Tyr	Ser	Gly	Thr	Cys
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Tyr	Thr	Thr	Ser	Val	Leu	Trp	Ile	Val	Asp	Ile	Ser	Phe	Cys	Gly
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Asp	Thr	Val	Glu	Asn										
				185										

<210> 212

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 212

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 aaaagt 1706

Variable	Mean	SD	Min	Max
Age	38.5	10.2	25	55
Gender	Male	Female		
Marital Status	Married	Single		
Education	High School	College		
Occupation	Manager	Worker		
Income	\$30,000	\$40,000		
Health Status	Good	Fair		
Exercise Frequency	Weekly	Monthly		
Stress Level	Low	High		
Sleep Quality	Good	Poor		
Dietary Habits	Healthy	Unhealthy		
Alcohol Consumption	None	Occasional		
Tobacco Use	Non-user	User		
Family Size	2	3		
Work Hours	40	50		
Commuting Time	30	45		
Living Space	Small	Large		
Neighborhood Safety	Safe	Unsafe		
Access to Parks	Yes	No		
Public Transportation	Used	Not Used		
Crime Rate	Low	High		
Property Taxes	Low	High		
School Quality	Good	Poor		
Healthcare Access	Good	Poor		
Community Engagement	High	Low		
Local Businesses	Many	Few		
Weather Conditions	Good	Poor		
Proximity to Water	Yes	No		
Local Events	Frequent	Rare		
Public Services	Good	Poor		
Local Government	Effective	Ineffective		
Local Media	Good	Poor		
Local Culture	Rich	Poor		
Local History	Interesting	Boring		
Local Landmarks	Many	Few		
Local Parks	Many	Few		
Local Schools	Good	Poor		
Local Healthcare	Good	Poor		
Local Crime	Low	High		
Local Property Taxes	Low	High		
Local School Quality	Good	Poor		
Local Healthcare Access	Good	Poor		
Local Community Engagement	High	Low		
Local Businesses	Many	Few		
Local Weather	Good	Poor		
Local Proximity to Water	Yes	No		
Local Events	Frequent	Rare		
Local Public Services	Good	Poor		
Local Government	Effective	Ineffective		
Local Media	Good	Poor		
Local Culture	Rich	Poor		
Local History	Interesting	Boring		
Local Landmarks	Many	Few		
Local Parks	Many	Few		
Local Schools	Good	Poor		
Local Healthcare	Good	Poor		
Local Crime	Low	High		
Local Property Taxes	Low	High		
Local School Quality	Good	Poor		
Local Healthcare Access	Good	Poor		
Local Community Engagement	High	Low		
Local Businesses	Many	Few		
Local Weather	Good	Poor		
Local Proximity to Water	Yes	No		
Local Events	Frequent	Rare		
Local Public Services	Good	Poor		
Local Government	Effective	Ineffective		
Local Media	Good	Poor		
Local Culture	Rich	Poor		
Local History	Interesting	Boring		
Local Landmarks	Many	Few		
Local Parks	Many	Few		
Local Schools	Good	Poor		
Local Healthcare	Good	Poor		
Local Crime	Low	High		
Local Property Taxes	Low	High		
Local School Quality	Good	Poor		
Local Healthcare Access	Good	Poor		
Local Community Engagement	High	Low		
Local Businesses	Many	Few		
Local Weather	Good	Poor		
Local Proximity to Water	Yes	No		
Local Events	Frequent	Rare		
Local Public Services	Good	Poor		
Local Government	Effective	Ineffective		
Local Media	Good	Poor		
Local Culture	Rich	Poor		
Local History	Interesting	Boring		
Local Landmarks	Many	Few		
Local Parks	Many	Few		
Local Schools	Good	Poor		
Local Healthcare	Good	Poor		
Local Crime	Low	High		
Local Property Taxes	Low	High		
Local School Quality	Good	Poor		
Local Healthcare Access	Good	Poor		
Local Community Engagement	High	Low		
Local Businesses	Many	Few		
Local Weather	Good	Poor		
Local Proximity to Water	Yes	No		
Local Events	Frequent	Rare		
Local Public Services	Good	Poor		

Met Asn Asp Ser Leu Arg Thr Asn Val Phe Val Arg Phe Gln Pro
1 5 10 15

Gln Ile Pro Leu Pro Thr Arg Pro His Trp Phe Leu Leu Phe Gly
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Thr Thr Glu Glu Glu Ile Gln Glu Ile Cys Ile Glu Thr Leu Arg
50 55 60

Leu Tyr Thr Arg Lys Lys Pro Asn Tyr Glu Leu Leu Glu Lys Glu
65 70 75

Val Glu Lys Arg Lys Val Ala Leu Gln Glu Ala Lys Leu Lys Ala
80 85 90

Lys Gly Leu Asn Pro Asp Gly Thr Pro Ala Leu Ser Thr Leu Gly
95 100 105

Gly Phe Ser Pro Ala Ser Lys Pro Ser Ser Pro Arg Glu Val Lys
110 115 120

Ala Glu Glu Lys Ser Pro Ile Ser Ile Asn Val Lys Thr Val Lys
125 130 135

Lys Glu Pro Glu Asp Arg Gln Gln Ala Ser Lys Ser Pro Tyr Asn
140 145 150

Gly Val Arg Lys Asp Ser Lys Arg Ser Arg Asn Ser Arg Ser Ala
155 160 165

Ser Arg Ser Arg Ser Arg Thr Arg Ser Arg Ser Arg Ser His Thr
170 175 180

Pro Arg Arg His Tyr Asn Asn Arg Arg Ser Arg Ser Gly Thr Tyr
185 190 195

Ser Ser Arg Ser Arg Ser Arg Ser Arg Ser His Ser Glu Ser Pro
200 205 210

Arg Arg His His Asn His Gly Ser Pro His Leu Lys Ala Lys His
215 220 225

Thr Arg Asp Asp Leu Lys Ser Ser Asn Arg His Gly His Lys Arg
230 235 240

Lys Lys Ser Arg Ser Arg Ser Gln Ser Lys Ser Arg Asp His Ser
245 250 255

Asp Ala Ala Lys Lys His Arg His Glu Arg Gly His His Arg Asp

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His His Gly Gly Ser Arg Ser Gly His Gly Arg His Arg Arg			
	290	295	

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 <222> 72-73, 85, 91, 127, 226, 268, 454, 484, 513, 566, 663
 <223> unknown base

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 ccgttgccaa ctngtcccca ttggtttctt ctttttggtg ctacagaaga 550
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 agccaaacta tgaattactg gaaaaagaag tagaaaaaag aaaagtagcc 650
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 <212> DNA
 <213> Homo sapiens

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<212> DNA
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<222> 5, 146
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<211> 2571
<212> DNA
<213> Homo sapiens

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 <212> PRT
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 35 40 45
 Arg Arg Ser Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr
 50 55 60
 Ala Thr Ala Pro Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser
 65 70 75
 Leu Met Thr Asp Glu Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser
 80 85 90
 Ser Ala Glu Asp Gly Gln Pro Ala Ile Ser Pro Val Asp Ser Gly
 95 100 105
 Arg Ser Asn Arg Thr Arg Ala Arg Pro Phe Glu Arg Ser Thr Ile
 110 115 120
 Arg Ser Arg Ser Phe Lys Lys Ile Asn Arg Ala Leu Ser Val Leu
 125 130 135

Arg Arg Thr Lys	Ser Gly Ser Ala Val	Ala Asn His Ala Asp	Gln
140		145	150
Gly Arg Glu Asn	Ser Glu Asn Thr Thr	Ala Pro Glu Val Phe	Pro
155		160	165
Arg Leu Tyr His	Leu Ile Pro Asp Gly	Glu Ile Thr Ser Ile	Lys
170		175	180
Ile Asn Arg Val	Asp Pro Ser Glu Ser	Leu Ser Ile Arg Leu	Val
185		190	195
Gly Gly Ser Glu	Thr Pro Leu Val His	Ile Ile Ile Gln His	Ile
200		205	210
Tyr Arg Asp Gly	Val Ile Ala Arg Asp	Gly Arg Leu Leu Pro	Gly
215		220	225
Asp Ile Ile Leu	Lys Val Asn Gly Met	Asp Ile Ser Asn Val	Pro
230		235	240
His Asn Tyr Ala	Val Arg Leu Leu Arg	Gln Pro Cys Gln Val	Leu
245		250	255
Trp Leu Thr Val	Met Arg Glu Gln Lys	Phe Arg Ser Arg Asn	Asn
260		265	270
Gly Gln Ala Pro	Asp Ala Tyr Arg Pro	Arg Asp Asp Ser Phe	His
275		280	285
Val Ile Leu Asn	Lys Ser Ser Pro Glu	Glu Gln Leu Gly Ile	Lys
290		295	300
Leu Val Arg Lys	Val Asp Glu Pro Gly	Val Phe Ile Phe Asn	Val
305		310	315
Leu Asp Gly Gly	Val Ala Tyr Arg His	Gly Gln Leu Glu Glu	Asn
320		325	330
Asp Arg Val Leu	Ala Ile Asn Gly His	Asp Leu Arg Tyr Gly	Ser
335		340	345
Pro Glu Ser Ala	Ala His Leu Ile Gln	Ala Ser Glu Arg Arg	Val
350		355	360
His Leu Val Val	Ser Arg Gln Val Arg	Gln Arg Ser Pro Asp	Ile
365		370	375
Phe Gln Glu Ala	Gly Trp Asn Ser Asn	Gly Ser Trp Ser Pro	Gly
380		385	390
Pro Gly Glu Arg	Ser Asn Thr Pro Lys	Pro Leu His Pro Thr	Ile
395		400	405
Thr Cys His Glu	Lys Val Val Asn Ile	Gln Lys Asp Pro Gly	Glu
410		415	420
Ser Leu Gly Met	Thr Val Ala Gly Gly	Ala Ser His Arg Glu	Trp

425	430	435
Asp Leu Pro Ile Tyr Val Ile Ser Val	Glu Pro Gly Gly Val Ile	
440	445	450
Ser Arg Asp Gly Arg Ile Lys Thr Gly	Asp Ile Leu Leu Asn Val	
455	460	465
Asp Gly Val Glu Leu Thr Glu Val Ser	Arg Ser Glu Ala Val Ala	
470	475	480
Leu Leu Lys Arg Thr Ser Ser Ser Ile	Val Leu Lys Ala Leu Glu	
485	490	495
Val Lys Glu Tyr Glu Pro Gln Glu Asp	Cys Ser Ser Pro Ala Ala	
500	505	510
Leu Asp Ser Asn His Asn Met Ala Pro	Pro Ser Asp Trp Ser Pro	
515	520	525
Ser Trp Val Met Trp Leu Glu Leu Pro	Arg Cys Leu Tyr Asn Cys	
530	535	540
Lys Asp Ile Val Leu Arg Arg Asn Thr	Ala Gly Ser Leu Gly Phe	
545	550	555
Cys Ile Val Gly Gly Tyr Glu Glu Tyr	Asn Gly Asn Lys Pro Phe	
560	565	570
Phe Ile Lys Ser Ile Val Glu Gly Thr	Pro Ala Tyr Asn Asp Gly	
575	580	585
Arg Ile Arg Cys Gly Asp Ile Leu Leu	Ala Val Asn Gly Arg Ser	
590	595	600
Thr Ser Gly Met Ile His Ala Cys Leu	Ala Arg Leu Leu Lys Glu	
605	610	615
Leu Lys Gly Arg Ile Thr Leu Thr Ile	Val Ser Trp Pro Gly Thr	
620	625	630

Phe Leu

<210> 220
 <211> 773
 <212> DNA
 <213> Homo sapiens

<400> 220
 ccaaagtgat catttgaaaa agagatatcc acatcttcaa gcccatataa 50
 aggatagaag ctgcacaggg cagctttact tactccagca ccttcctctc 100
 ccaggcaaat ggtgctgacc atctttggga tacaatctca tggatacgag 150
 gtttttaaca tcatcagccc aagcaacaat ggtggcaatg ttcaggagac 200

agtgacaatt gataatgaaa aaaataccgc catcgттаac atccatgcag 250
gatcatgctc ttctaccaca atttttgact ataaacatgg ctacattgca 300
tccaggggtgc tctcccgaag agcctgcttt atcctgaaga tggaccatca 350
gaacatccct cctctgaaca atctccaatg gtacatctat gagaaacagg 400
ctctggacaa catgtttctcc aacaaataca cctgggtcaa gtacaaccct 450
ctggagtctc tgatcaaaga cgtggattgg ttctgcttg ggtcacccat 500
tgagaaactc tgcaaacata tccctttgta taagggggaa gtggttgaaa 550
acacacataa tgtcgggtgct ggaggctgtg caaaggctgg gctcctgggc 600
atcttgggaa tttcaatctg tgcagacatt catgtttagg atgattagcc 650
ctcttgTTTT atcttttcaa agaaatacat ccttggttta cactcaaaag 700
tcaaattaaa ttctttccca atgcccacac taattttgag attcagtcag 750
aaaatataaa tgctgtatTTT ata 773

<210> 221

<211> 184

<212> PRT

<213> Homo sapiens

<400> 221

Met	Lys	Ile	Leu	Val	Ala	Phe	Leu	Val	Val	Leu	Thr	Ile	Phe	Gly	1	5	10	15
Ile	Gln	Ser	His	Gly	Tyr	Glu	Val	Phe	Asn	Ile	Ile	Ser	Pro	Ser	20	25	30	
Asn	Asn	Gly	Gly	Asn	Val	Gln	Glu	Thr	Val	Thr	Ile	Asp	Asn	Glu	35	40	45	
Lys	Asn	Thr	Ala	Ile	Val	Asn	Ile	His	Ala	Gly	Ser	Cys	Ser	Ser	50	55	60	
Thr	Thr	Ile	Phe	Asp	Tyr	Lys	His	Gly	Tyr	Ile	Ala	Ser	Arg	Val	65	70	75	
Leu	Ser	Arg	Arg	Ala	Cys	Phe	Ile	Leu	Lys	Met	Asp	His	Gln	Asn	80	85	90	
Ile	Pro	Pro	Leu	Asn	Asn	Leu	Gln	Trp	Tyr	Ile	Tyr	Glu	Lys	Gln	95	100	105	
Ala	Leu	Asp	Asn	Met	Phe	Ser	Asn	Lys	Tyr	Thr	Trp	Val	Lys	Tyr	110	115	120	
Asn	Pro	Leu	Glu	Ser	Leu	Ile	Lys	Asp	Val	Asp	Trp	Phe	Leu	Leu	125	130	135	
Gly	Ser	Pro	Ile	Glu	Lys	Leu	Cys	Lys	His	Ile	Pro	Leu	Tyr	Lys				

	140		145		150
Gly Glu Val Val Glu Asn Thr His Asn Val Gly Ala Gly Gly Cys					
	155		160		165
Ala Lys Ala Gly Leu Leu Gly Ile Leu Gly Ile Ser Ile Cys Ala					
	170		175		180
Asp Ile His Val					

<210> 222
 <211> 992
 <212> DNA
 <213> Homo sapiens

<400> 222
 ggcacgagcc aggaactagg aggttctcac tgcccagagca gaggccctac 50
 acccaccgag gcatggggct ccctgggctg ttctgcttgg ccgtgctggc 100
 tgccagcagc ttctccaagg cacgggagga agaaattacc cctgtggtct 150
 ccattgccta caaagtctg gaagttttcc ccaaaggccg ctgggtgctc 200
 ataacctgct gtgcaccca gccaccaccg cccatcacct attcctctg 250
 tggaaccaag aacatcaagg tggccaagaa ggtggtgaag acccagcagc 300
 cggcctcctt caacctcaac gtcacactca agtccagtcc agacctgctc 350
 acctacttct gccgggctc ctccacctca ggtgcccattg tggacagtgc 400
 caggctacag atgcactggg agctgtggtc caagccagtg tctgagctgc 450
 gggccaactt cactctgcag gacagagggg caggccccag ggtggagatg 500
 atctgccagg cgtcctcggg cagcccacct atcaccaaca gcctgatcgg 550
 gaaggatggg caggctccacc tgcagcagag accatgccac aggcagcctg 600
 ccaacttctc ctctctgccg agccagacat cggactgggt ctggtgccag 650
 gctgcaaaca acgccaatgt ccagcacagc gccctcacag tggtgcccc 700
 aggtggtgac cagaagatgg aggactggca ggggtcccctg gagagcccca 750
 tccttgctt gccgctctac aggagcacc gccgtctgag tgaagaggag 800
 tttggggggg ttaggatagg gaatggggag gtcagaggac gcaaagcagc 850
 agccatgtag aatgaaccgt ccagagagcc aagcacggca gaggactgca 900
 ggccatcagc gtgcactgtt cgtatttgga gttcatgcaa aatgagtgtg 950
 ttttagctgc tcttgccaca aaaaaaaaaa aaaaaaaaaa aa 992
 <210> 223

<211> 265
 <212> PRT
 <213> Homo sapiens

<400> 223

Met	Gly	Leu	Pro	Gly	Leu	Phe	Cys	Leu	Ala	Val	Leu	Ala	Ala	Ser	1	5	10	15
Ser	Phe	Ser	Lys	Ala	Arg	Glu	Glu	Glu	Ile	Thr	Pro	Val	Val	Ser	20	25	30	
Ile	Ala	Tyr	Lys	Val	Leu	Glu	Val	Phe	Pro	Lys	Gly	Arg	Trp	Val	35	40	45	
Leu	Ile	Thr	Cys	Cys	Ala	Pro	Gln	Pro	Pro	Pro	Pro	Ile	Thr	Tyr	50	55	60	
Ser	Leu	Cys	Gly	Thr	Lys	Asn	Ile	Lys	Val	Ala	Lys	Lys	Val	Val	65	70	75	
Lys	Thr	His	Glu	Pro	Ala	Ser	Phe	Asn	Leu	Asn	Val	Thr	Leu	Lys	80	85	90	
Ser	Ser	Pro	Asp	Leu	Leu	Thr	Tyr	Phe	Cys	Arg	Ala	Ser	Ser	Thr	95	100	105	
Ser	Gly	Ala	His	Val	Asp	Ser	Ala	Arg	Leu	Gln	Met	His	Trp	Glu	110	115	120	
Leu	Trp	Ser	Lys	Pro	Val	Ser	Glu	Leu	Arg	Ala	Asn	Phe	Thr	Leu	125	130	135	
Gln	Asp	Arg	Gly	Ala	Gly	Pro	Arg	Val	Glu	Met	Ile	Cys	Gln	Ala	140	145	150	
Ser	Ser	Gly	Ser	Pro	Pro	Ile	Thr	Asn	Ser	Leu	Ile	Gly	Lys	Asp	155	160	165	
Gly	Gln	Val	His	Leu	Gln	Gln	Arg	Pro	Cys	His	Arg	Gln	Pro	Ala	170	175	180	
Asn	Phe	Ser	Phe	Leu	Pro	Ser	Gln	Thr	Ser	Asp	Trp	Phe	Trp	Cys	185	190	195	
Gln	Ala	Ala	Asn	Asn	Ala	Asn	Val	Gln	His	Ser	Ala	Leu	Thr	Val	200	205	210	
Val	Pro	Pro	Gly	Gly	Asp	Gln	Lys	Met	Glu	Asp	Trp	Gln	Gly	Pro	215	220	225	
Leu	Glu	Ser	Pro	Ile	Leu	Ala	Leu	Pro	Leu	Tyr	Arg	Ser	Thr	Arg	230	235	240	
Arg	Leu	Ser	Glu	Glu	Glu	Phe	Gly	Gly	Phe	Arg	Ile	Gly	Asn	Gly	245	250	255	
Glu	Val	Arg	Gly	Arg	Lys	Ala	Ala	Ala	Met						260	265		

<210> 224
 <211> 1297
 <212> DNA
 <213> Homo sapiens

<400> 224
 ggtccttaat ggcagcagcc gccgctacca agatccttct gtgcctcccg 50
 cttctgctcc tgctgtccgg ctgggtcccg gctgggagag ccgaccctca 100
 ctctcttttg tatgacatca ccgtcatccc taagttcaga cctggaccac 150
 ggtggtgtgc ggttcaaggc cagggtgatg aaaagacttt tcttcactat 200
 gactgtggca acaagacagt cacacctgtc agtcccctgg ggaagaaact 250
 aaatgtcaca acggcctgga aagcacagaa cccagtactg agagaggtgg 300
 tggacatact tacagagcaa ctgcgtgaca ttcagctgga gaattacaca 350
 cccaaggaac ccctcacct gcaggcaagg atgtcttgag agcagaaagc 400
 tgaaggacac agcagtggat cttggcagtt cagtttcgat gggcagatct 450
 tcctcctctt tgactcagag aagagaatgt ggacaacggg tcctcctgga 500
 gccagaaaaga tgaaagaaaa gtgggagaat gacaagggtg tggccatgtc 550
 cttccattac ttctcaatgg gagactgtat aggatggctt gaggacttct 600
 tgatgggcat ggacagcacc ctggagccaa gtgcaggagc accactcgcc 650
 atgtcctcag gcacaacca actcagggcc acagccacca ccctcatcct 700
 ttgctgcctc ctcatcatcc tcccctgctt catcctccct ggcatctgag 750
 gagagtcctt tagagtgaca ggttaaagct gataccaaaa ggctcctgtg 800
 agcacggtct tgatcaaact cgcccttctg tctggccagc tgcccacgac 850
 ctacggtgta tgtccagtgg cctccagcag atcatgatga catcatggac 900
 ccaatagctc attcactgcc ttgattcctt ttgccaacaa ttttaccagc 950
 agttatacct aacatattat gcaattttct cttggtgcta cctgatggaa 1000
 ttcttgact taaagttctg gctgactaaa caagatatat cattttcttt 1050
 cttctctttt tgtttggaat atcaagtact tctttgaatg atgatctctt 1100
 tcttgcaaag gatattgtca gtaaaataat cacgtagac ttcagacctc 1150
 tggggattct ttccgtgtcc tgaaagagaa tttttaaat atttaataag 1200
 aaaaaattta tattaatgat tgtttccttt agtaatttat tgttctgtac 1250
 tgatatttaa ataaagagtt ctatttccca aaaaaaaaaa aaaaaaa 1297

<210> 225
 <211> 246
 <212> PRT
 <213> Homo sapiens

<400> 225
 Met Ala Ala Ala Ala Thr Lys Ile Leu Leu Cys Leu Pro Leu
 1 5 10 15
 Leu Leu Leu Leu Ser Gly Trp Ser Arg Ala Gly Arg Ala Asp Pro
 20 25 30
 His Ser Leu Cys Tyr Asp Ile Thr Val Ile Pro Lys Phe Arg Pro
 35 40 45
 Gly Pro Arg Trp Cys Ala Val Gln Gly Gln Val Asp Glu Lys Thr
 50 55 60
 Phe Leu His Tyr Asp Cys Gly Asn Lys Thr Val Thr Pro Val Ser
 65 70 75
 Pro Leu Gly Lys Lys Leu Asn Val Thr Thr Ala Trp Lys Ala Gln
 80 85 90
 Asn Pro Val Leu Arg Glu Val Val Asp Ile Leu Thr Glu Gln Leu
 95 100 105
 Arg Asp Ile Gln Leu Glu Asn Tyr Thr Pro Lys Glu Pro Leu Thr
 110 115 120
 Leu Gln Ala Arg Met Ser Cys Glu Gln Lys Ala Glu Gly His Ser
 125 130 135
 Ser Gly Ser Trp Gln Phe Ser Phe Asp Gly Gln Ile Phe Leu Leu
 140 145 150
 Phe Asp Ser Glu Lys Arg Met Trp Thr Thr Val His Pro Gly Ala
 155 160 165
 Arg Lys Met Lys Glu Lys Trp Glu Asn Asp Lys Val Val Ala Met
 170 175 180
 Ser Phe His Tyr Phe Ser Met Gly Asp Cys Ile Gly Trp Leu Glu
 185 190 195
 Asp Phe Leu Met Gly Met Asp Ser Thr Leu Glu Pro Ser Ala Gly
 200 205 210
 Ala Pro Leu Ala Met Ser Ser Gly Thr Thr Gln Leu Arg Ala Thr
 215 220 225
 Ala Thr Thr Leu Ile Leu Cys Cys Leu Leu Ile Ile Leu Pro Cys
 230 235 240
 Phe Ile Leu Pro Gly Ile
 245

<210> 226

Ser His Glu Gln Ile Pro Lys Arg Lys Leu Lys Leu Gly Gly Gln
 95 100 105

Pro Thr Glu Gln His Phe Trp Ala Arg Leu
 110 115

<210> 228
 <211> 2185
 <212> DNA
 <213> Homo sapiens

<400> 228
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 cacaccatga agctcttgtg gcaggtaact gtgcaccacc acacctggaa 100
 tgccatcctg ctcccgttcg tctacctcac ggcgcaagtg tggattctgt 150
 gtgcagccat cgctgctgcc gcctcagccg ggccccagaa ctgccccctc 200
 gtttgctcgt gcagtaacca gttcagcaag gtggtgtgca cgcgccgggg 250
 cctctccgag gtcccgagg gtattccctc gaacacccgg tacctcaacc 300
 tcatggagaa caacatccag atgatccagg ccgacacctt ccgccacctc 350
 caccacctgg aggtcctgca gttgggcagg aactccatcc ggcagattga 400
 ggtggggggc ttcaacggcc tggccagcct caacaccctg gagctgttcg 450
 acaactggct gacagtcac cctagcgggg cctttgaata cctgtccaag 500
 ctgcgggagc tctggcttcg caacaacccc atcgaaagca tcccctctta 550
 cgcttcaac cgggtgccct ccctcatgcg cctggacttg ggggagctca 600
 agaagctgga gtatatctct gagggagctt ttgaggggct gttcaacctc 650
 aagtatctga acttgggcat gtgcaacatt aaagacatgc ccaatctcac 700
 ccccttggtg gggctggagg agctggagat gtcaggggaa cacttccctg 750
 agatcaggcc tggctccttc catggcctga gctccctcaa gaagctctgg 800
 gtcatgaact cacaggctcag cctgattgag cggaatgctt ttgacgggct 850
 ggcttcaact gtggaactca acttggccca caataacctc tcttctttgc 900
 cccatgacct ctttaccctg ctgaggtacc tgggtggagtt gcatctacac 950
 cacaacctt ggaactgtga ttgtgacatt ctgtggctag cctggtggct 1000
 tcgagagtat ataccacca attccacctg ctgtggccgc tgtcatgctc 1050
 ccatgcacat gcgaggccgc tacctcgtgg aggtggacca ggctccttc 1100
 cagtgcctcg ccccttcat catggacgca cctcgagacc tcaacatttc 1150

Ala Ser Phe Gln Cys Ser Ala Pro Phe Ile Met Asp Ala Pro Arg	350	355	360
Asp Leu Asn Ile Ser Glu Gly Arg Met Ala Glu Leu Lys Cys Arg	365	370	375
Thr Pro Pro Met Ser Ser Val Lys Trp Leu Leu Pro Asn Gly Thr	380	385	390
Val Leu Ser His Ala Ser Arg His Pro Arg Ile Ser Val Leu Asn	395	400	405
Asp Gly Thr Leu Asn Phe Ser His Val Leu Leu Ser Asp Thr Gly	410	415	420
Val Tyr Thr Cys Met Val Thr Asn Val Ala Gly Asn Ser Asn Ala	425	430	435
Ser Ala Tyr Leu Asn Val Ser Thr Ala Glu Leu Asn Thr Ser Asn	440	445	450
Tyr Ser Phe Phe Thr Thr Val Thr Val Glu Thr Thr Glu Ile Ser	455	460	465
Pro Glu Asp Thr Thr Arg Lys Tyr Lys Pro Val Pro Thr Thr Ser	470	475	480
Thr Gly Tyr Gln Pro Ala Tyr Thr Thr Ser Thr Thr Val Leu Ile	485	490	495
Gln Thr Thr Arg Val Pro Lys Gln Val Ala Val Pro Ala Thr Asp	500	505	510
Thr Thr Asp Lys Met Gln Thr Ser Leu Asp Glu Val Met Lys Thr	515	520	525
Thr Lys Ile Ile Ile Gly Cys Phe Val Ala Val Thr Leu Leu Ala	530	535	540
Ala Ala Met Leu Ile Val Phe Tyr Lys Leu Arg Lys Arg His Gln	545	550	555
Gln Arg Ser Thr Val Thr Ala Ala Arg Thr Val Glu Ile Ile Gln	560	565	570
Val Asp Glu Asp Ile Pro Ala Ala Thr Ser Ala Ala Ala Thr Ala	575	580	585
Ala Pro Ser Gly Val Ser Gly Glu Gly Ala Val Val Leu Pro Thr	590	595	600
Ile His Asp His Ile Asn Tyr Asn Thr Tyr Lys Pro Ala His Gly	605	610	615
Ala His Trp Thr Glu Asn Ser Leu Gly Asn Ser Leu His Pro Thr	620	625	630
Val Thr Thr Ile Ser Glu Pro Tyr Ile Ile Gln Thr His Thr Lys			

635

640

645

Asp Lys Val Gln Glu Thr Gln Ile
650

<210> 230

<211> 2846

<212> DNA

<213> Homo sapiens

<400> 230

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tacacagtca ttaatgaagc ctgccctgga gcagagtgga atatcatgtg 150
tcgggagtgc tgtgaatatg atcagattga gtgcgtctgc cccggaaga 200
gggaagtcgt gggttatacc atcccttgct gcaggaatga ggagaatgag 250
tgtgactcct gctgatcca ccaggttgt accatctttg aaaactgcaa 300
gagctgccga aatggctcat ggggggtac cttggatgac ttctatgtga 350
aggggttcta ctgtgcagag tgccgagcag gctggtacgg aggagactgc 400
atgcgatgtg gccaggttct gcgagcccca aagggtcaga tttgttgga 450
aagctatccc ctaaagtctc actgtgaatg gaccattcat gctaaacctg 500
ggtttgtcat ccaactaaga tttgtcatgt tgagtctgga gtttgactac 550
atgtgccagt atgactatgt tgaggttcgt gatggagaca accgcgatgg 600
ccagatcatc aagcgtgtct gtggcaacga gcggccagct cctatccaga 650
gcataggatc ctactccac gtctcttcc actccgatgg ctccaagaat 700
tttgacggtt tccatgccat ttatgaggag atcacagcat gtcctcatc 750
cccttgtttc catgacggca cgtgcgtcct tgacaaggct ggatcttaca 800
agtgtgcctg cttggcaggc tatactgggc agcgtgtga aaatctcctt 850
gaagaaagaa actgctcaga ccctgggggc ccagtcaatg ggtaccagaa 900
aataacaggg ggccctgggc ttatcaacgg acgccatgct aaaattggca 950
ccgtggtgtc tttcttttgt aacaactcct atgttcttag tggcaatgag 1000
aaaagaactt gccagcagaa tggagagtgg tcagggaaac agcccatctg 1050
cataaaagcc tgccgagaac caaagatttc agacctggtg agaaggagag 1100
ttcttccgat gcaggttcag tcaagggaga caccattaca ccagctatac 1150
tcagcggcct tcagcaagca gaaactgcag agtgccccta ccaagaagcc 1200

gtcctttttcc ttccccatct cttgtacaca ttttaataaa ataaggggttg 2700
gcttctgaac tacaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2800
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 2846

<210> 231
<211> 720
<212> PRT
<213> Homo sapiens

<400> 231
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1 5 10 15
Leu Leu Leu Ile Ser Ser Leu Pro Arg Glu Tyr Thr Val Ile Asn
20 25 30
Glu Ala Cys Pro Gly Ala Glu Trp Asn Ile Met Cys Arg Glu Cys
35 40 45
Cys Glu Tyr Asp Gln Ile Glu Cys Val Cys Pro Gly Lys Arg Glu
50 55 60
Val Val Gly Tyr Thr Ile Pro Cys Cys Arg Asn Glu Glu Asn Glu
65 70 75
Cys Asp Ser Cys Leu Ile His Pro Gly Cys Thr Ile Phe Glu Asn
80 85 90
Cys Lys Ser Cys Arg Asn Gly Ser Trp Gly Gly Thr Leu Asp Asp
95 100 105
Phe Tyr Val Lys Gly Phe Tyr Cys Ala Glu Cys Arg Ala Gly Trp
110 115 120
Tyr Gly Gly Asp Cys Met Arg Cys Gly Gln Val Leu Arg Ala Pro
125 130 135
Lys Gly Gln Ile Leu Leu Glu Ser Tyr Pro Leu Asn Ala His Cys
140 145 150
Glu Trp Thr Ile His Ala Lys Pro Gly Phe Val Ile Gln Leu Arg
155 160 165
Phe Val Met Leu Ser Leu Glu Phe Asp Tyr Met Cys Gln Tyr Asp
170 175 180
Tyr Val Glu Val Arg Asp Gly Asp Asn Arg Asp Gly Gln Ile Ile
185 190 195
Lys Arg Val Cys Gly Asn Glu Arg Pro Ala Pro Ile Gln Ser Ile
200 205 210
Gly Ser Ser Leu His Val Leu Phe His Ser Asp Gly Ser Lys Asn
215 220 225

515	520	525
Lys Phe Tyr Arg Asp Asp Asp Arg Asp	Glu Lys Thr Ile Gln Ser	
530	535	540
Leu Gln Ile Ser Ala Ile Ile Leu His	Pro Asn Tyr Asp Pro Ile	
545	550	555
Leu Leu Asp Ala Asp Ile Ala Ile Leu	Lys Leu Leu Asp Lys Ala	
560	565	570
Arg Ile Ser Thr Arg Val Gln Pro Ile	Cys Leu Ala Ala Ser Arg	
575	580	585
Asp Leu Ser Thr Ser Phe Gln Glu Ser	His Ile Thr Val Ala Gly	
590	595	600
Trp Asn Val Leu Ala Asp Val Arg Ser	Pro Gly Phe Lys Asn Asp	
605	610	615
Thr Leu Arg Ser Gly Val Val Ser Val	Val Asp Ser Leu Leu Cys	
620	625	630
Glu Glu Gln His Glu Asp His Gly Ile	Pro Val Ser Val Thr Asp	
635	640	645
Asn Met Phe Cys Ala Ser Trp Glu Pro	Thr Ala Pro Ser Asp Ile	
650	655	660
Cys Thr Ala Glu Thr Gly Gly Ile Ala	Ala Val Ser Phe Pro Gly	
665	670	675
Arg Ala Ser Pro Glu Pro Arg Trp His	Leu Met Gly Leu Val Ser	
680	685	690
Trp Ser Tyr Asp Lys Thr Cys Ser His	Arg Leu Ser Thr Ala Phe	
695	700	705
Thr Lys Val Leu Pro Phe Lys Asp Trp	Ile Glu Arg Asn Met Lys	
710	715	720

<210> 232
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 232
 aggttcgtga tggagacaac cgcg 24

<210> 233
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 233

tgtcaaggac gcactgccgt catg 24

<210> 234

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 234

tggccagatc atcaagcgtg tctgtggcaa cgagcggcca gtcctatcc 50

<210> 235

<211> 1964

<212> DNA

<213> Homo sapiens

<400> 235

accaggcatt gtatcttcag ttgtcatcaa gttcgcaatc agattggaaa 50
agctcaactt gaagctttct tgcctgcagt gaagcagaga gatagatatt 100
attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150
caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200
gggccaccag taactacttc gtgggtgcca ttcaagagat tcctaaagca 250
aaggagttca tggctaattt ccataagacc ctcatcttgg ggaagggaaa 300
aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350
cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400
gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450
ccggtatcgc ctcaggaat gtaaagcttt acagaggggc gccatcctcg 500
ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550
catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600
ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650
atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700
gtggacctgg taccgagaa tgactttaac ctttacaagt gtgaggagca 750
tccaagcat ctggtggttg gcaggaacag cactgggtac aggttacgtt 800
acagtggata ttttgggggt gttactgcc taagcagaga gcagtttttc 850
aaggatgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900

tgacctcaga ctcaggggtg agctccaaag aatgaaaatt tcccggcccc 950
 tgcctgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000
 aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050
 ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100
 aacacaatcc tttatatatc aacatcacag tggatttctg gtttggtgca 1150
 tgaccttga tcttttggtg atgtttggaa gaactgattc tttgtttgca 1200
 ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250
 acagctcatt gttgagctga atttttcctt tttgtatttt cttagcagag 1300
 ctctgggtga tgtagagtat aaaacagttg taacaagaca gctttcttag 1350
 tcattttgat catgaggggtt aaatattgta atatggatac ttgaaggact 1400
 ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450
 tgggtgaagg agattttattt aaatttgaag taatatatta tgggataaaa 1500
 ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550
 cgtccaaggt agaaaggtag gaagatacaa tactgttatt catttatcct 1600
 gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650
 gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700
 ggtagcagga ggggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750
 gttgcaggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800
 cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850
 tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900
 acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950
 gtgaaaaagc aaaa 1964

- <210> 236
- <211> 344
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> Signal peptide
- <222> 1-27
- <223> Signal peptide
- <220>
- <221> N-glycosylation sites
- <222> 4-7, 220-223, 335-338
- <223> N-glycosylation sites

Geographical location		Elevation		Temperature		Humidity		Wind speed		Precipitation		Soil type		Vegetation		Land use		Population density		Economic activity		Social structure		Cultural practices		Political system		Legal system		Religious beliefs		Education level		Health status		Life expectancy		Mortality rate		Fertility rate		Sex ratio		Age structure		Migration patterns		Urbanization		Infrastructure		Communication		Transportation		Energy supply		Water supply		Food security		Housing conditions		Sanitation		Pollution levels		Environmental quality		Biodiversity		Conservation status		Protected areas		Wildlife management		Fisheries management		Forestry management		Agriculture management		Livestock management		Rural development		Urban development		Regional development		National development		Global development					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu
1 5 10 15

Ser Asn Tyr Phe Val Gly Ala Ile Gln Glu Ile Pro Lys Ala Lys
35 40 45

Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp
65 70 75

Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn
95 100 105

Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys
125 130 135

Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly
155 160 165

Ala Leu Lys Glu Glu Asn Trp Asp Cys Phe Ile Phe His Asp Val
185 190 195

His Pro Lys His Leu Val Val Gly Arg Asn Ser Thr Gly Tyr Arg
215 220 225

Glu Gln Phe Phe Lys Val Asn Gly Phe Ser Asn Asn Tyr Trp Gly
245 250 255

231

	260		265		270
Arg Met Lys Ile	Ser Arg Pro Leu Pro	Glu Val Gly Lys Tyr Thr			
	275	280			285
Met Val Phe His	Thr Arg Asp Lys Gly	Asn Glu Val Asn Ala Glu			
	290	295			300
Arg Met Lys Leu	Leu His Gln Val Ser	Arg Val Trp Arg Thr Asp			
	305	310			315
Gly Leu Ser Ser	Cys Ser Tyr Lys Leu	Val Ser Val Glu His Asn			
	320	325			330
Pro Leu Tyr Ile	Asn Ile Thr Val Asp	Phe Trp Phe Gly Ala			
	335	340			

<210> 237

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 237

ccttacctca gaggccagag caagc 25

<210> 238

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 238

gagcttcacgc cgttctgcgt tcacc 25

<210> 239

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 239

caggaatgta aagctttaca gagggtcgcc atcctcggtc cccacc 46

<210> 240

<211> 2567

<212> DNA

<213> Homo sapiens

<400> 240

cgtgggcccgg ggtcgcgcag cgggctgtgg gcgcgcccgaggagcgacc 50

ttggcctgga tcattccatcc atctgtacag ttcagccact gccacaagcc 1550
 cctccctctc tgtcaccctt gacccagcc attcaccat ctgtacagtc 1600
 cagccactga cataagcccc actcgggttac caccctcttg acccctacc 1650
 tttgaagagg cttcgtgcag gactttgatg cttgggggtgt tccgtgttga 1700
 ctctaggtg ggcctggctg cccactgccc attcctctca tattggcaca 1750
 tetgctgtcc attgggggtt ctgagtttcc tccccagac agccctacct 1800
 gtgccagaga gctagaaaga aggtcataaa ggggttaaaaa tccataacta 1850
 aagggtgtac acatagatgg gcacactcac agagagaagt gtgcatgtac 1900
 acacaccaca cacacacaca cacacacaca cacagaaata taaacacatg 1950
 cgtcacatgg gcatttcaga tgatcagctc tgtatctggt taagtcgggt 2000
 gctgggatgc accctgcact agagctgaaa ggaaatttga cctccaagca 2050
 gccctgacag gttctggggc cgggccctcc ctttctgctt tgtctctgca 2100
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 cctggatggg gggcaggact aatactgagt gattgcagag tgctttataa 2200
 atatcacctt attttatcga aaccatctg tgaaactttc actgaggaaa 2250
 aggccttgca gcggtagaag aggttgagtc aaggccgggc gcggtggctc 2300
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 tcaggagatc gagaccaccc tggctaacac ggtgaaaccc cgtctctact 2400
 aaaaaaatac aaaaagttag ccgggcgtgg tgggtgggtgc ctgtagtccc 2450
 agctactcgg gaggtgagg caggagaatg gtgcgaaccc gggaggcgga 2500
 gcttgcatg agccagatg gcgccactgc actccagcct gaggacaga 2550
 gcgagactct gtctcca 2567

<210> 241
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 241
 Met Ala Gln Ala Val Trp Ser Arg Leu Gly Arg Ile Leu Trp Leu
 1 5 10 15
 Ala Cys Leu Leu Pro Trp Ala Pro Ala Gly Val Ala Ala Gly Leu
 20 25 30
 Tyr Glu Leu Asn Leu Thr Thr Asp Ser Pro Ala Thr Thr Gly Ala
 35 40 45

[illegible]

335	340	345
Cys Ala Thr Leu Ile Thr Val Met Leu Ala Phe Ile Met Tyr Met		
350	355	360
Thr Leu Arg Asn Ala Thr Gln Gln Lys Asp Met Val Glu Asn Pro		
365	370	375
Glu Pro Pro Ser Gly Val Arg Cys Cys Cys Gln Met Cys Cys Gly		
380	385	390
Pro Phe Leu Leu Glu Thr Pro Ser Glu Tyr Leu Glu Ile Val Arg		
395	400	405
Glu Asn His Gly Leu Leu Pro Pro Leu Tyr Lys Ser Val Lys Thr		
410	415	420
Tyr Thr Val		

<210> 242
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 242
 catttcctta ccctggaccc agctcc 26

<210> 243
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 243
 gaaaggccca cagcacatct ggcag 25

<210> 244
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 244
 ccacgacccg agcaacttcc tcaagaccga cttgtttctc tacagc 46

<210> 245
 <211> 485
 <212> DNA
 <213> Homo sapiens

<400> 245
gctcaagacc cagcagtggg acagccagac agacggcacg atggcactga 50
gctcccagat ctgggccgct tgccctctgc tctctctctt cctcgccagc 100
ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150
gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200
agaggcgaag gaggcgagac acccacttcc ccatctgcat tttctgctgc 250
ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300
acctgccctg ccccgctccc ctcccttctt tatttattcc tgctgcccc 350
gaacataggt cttggaataa aatggctggt tcttttggtt tccaaaaaaa 400
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 246
<211> 84
<212> PRT
<213> Homo sapiens

<400> 246
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
1 5 10 15
Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln
20 25 30
Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
35 40 45
Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp
50 55 60
Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg
65 70 75
Ser Lys Cys Gly Met Cys Cys Lys Thr
80

<210> 247
<211> 2359
<212> DNA
<213> Homo sapiens

<400> 247
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tgctggcctg gcctggatct tccaccatgt tctgtttgct gccttttgat 100
agcctgattg tcaaccttct gggcatctcc ctgactgtcc tcttcaccct 150
ccttctcggt ttcatcatag tgccagccat ttttggagtc tcttttggt 200

tccgcaaact ctacatgaaa agtctgttaa aaatctttgc gtgggctacc 250
 ttgagaatgg agcgaggagc caaggagaag aaccaccagc ttacaagcc 300
 ctacaccaac ggaatcattg caaaggatcc cacttcacta gaagaagaga 350
 tcaaagagat tcgtcgaagt ggtagtagta aggctctgga caacactcca 400
 gagttcgagc tctctgacat tttctacttt tgccggaaag gaatggagac 450
 cattatggat gatgaggtga caaagagatt ctcagcagaa gaactggagt 500
 cctggaacct gctgagcaga accaattata acttccagta catcagcctt 550
 cggtcacgg tctgtgggg gttaggagtg ctgattcggg actgctttct 600
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 tgggcacaac tgtggtggga tacttgccaa atgggaggtt taaggaattc 700
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 gacagccatc atcacctacc atgacaggga aaacagacca agaatggtg 800
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 agegatggct attatgccat ggtgggtcaa gtgcacgggg gactcatggg 900
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 gctcggaagt gaaggatcgc cacctggtgg ctaagagact gactgaacat 1000
 gtgcaagata aaagcaagct gcctatcctc atcttcccag aaggaacctg 1050
 catcaataat acatcggatg tgatgttcaa aaagggaagt ttgaaattg 1100
 gagccacagt ttaccctggt gctatcaagt atgaccctca atttggcgat 1150
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 gatgaccagc tgggccattg totgcagcgt gtggtacctg cctcccatga 1250
 ctagagaggc agatgaagat gctgtccagt ttgcgaatag ggtgaaatct 1300
 gccattgcca ggcaggagag acttgtggac ctgctgtggg atgggggcct 1350
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 tgctccagc tggctggggc caccgtgcgg ggtgccaacg ggctcagagc 1500
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gctgctgggt gttgcgaccc aggacgagat gccttgtttc ttttacaata 1700
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 cgggtacaaga gtctgttatg caagcccgtg tgccagggat gtgctggggg 1850
 cggccacccg ctctccagga aaggcacagc tgaggcactg tggctggctt 1900
 cggcctcaac atcgccccca gccttgagagc tctgcagaca tgataggaag 1950
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 aactccccat gtgatgcgcg ctttgttgaa tgtgtgtctc ggtttcccca 2150
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<210> 248
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 248
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 1 5 10 15
 Gly Ile Ser Leu Thr Val Leu Phe Thr Leu Leu Leu Val Phe Ile
 20 25 30
 Ile Val Pro Ala Ile Phe Gly Val Ser Phe Gly Ile Arg Lys Leu
 35 40 45
 Tyr Met Lys Ser Leu Leu Lys Ile Phe Ala Trp Ala Thr Leu Arg
 50 55 60
 Met Glu Arg Gly Ala Lys Glu Lys Asn His Gln Leu Tyr Lys Pro
 65 70 75
 Tyr Thr Asn Gly Ile Ile Ala Lys Asp Pro Thr Ser Leu Glu Glu
 80 85 90
 Glu Ile Lys Glu Ile Arg Arg Ser Gly Ser Ser Lys Ala Leu Asp
 95 100 105
 Asn Thr Pro Glu Phe Glu Leu Ser Asp Ile Phe Tyr Phe Cys Arg

	110		115		120
Lys Gly Met Glu Thr Ile Met Asp Asp Glu Val Thr Lys Arg Phe	125		130		135
Ser Ala Glu Glu Leu Glu Ser Trp Asn Leu Leu Ser Arg Thr Asn	140		145		150
Tyr Asn Phe Gln Tyr Ile Ser Leu Arg Leu Thr Val Leu Trp Gly	155		160		165
Leu Gly Val Leu Ile Arg Tyr Cys Phe Leu Leu Pro Leu Arg Ile	170		175		180
Ala Leu Ala Phe Thr Gly Ile Ser Leu Leu Val Val Gly Thr Thr	185		190		195
Val Val Gly Tyr Leu Pro Asn Gly Arg Phe Lys Glu Phe Met Ser	200		205		210
Lys His Val His Leu Met Cys Tyr Arg Ile Cys Val Arg Ala Leu	215		220		225
Thr Ala Ile Ile Thr Tyr His Asp Arg Glu Asn Arg Pro Arg Asn	230		235		240
Gly Gly Ile Cys Val Ala Asn His Thr Ser Pro Ile Asp Val Ile	245		250		255
Ile Leu Ala Ser Asp Gly Tyr Tyr Ala Met Val Gly Gln Val His	260		265		270
Gly Gly Leu Met Gly Val Ile Gln Arg Ala Met Val Lys Ala Cys	275		280		285
Pro His Val Trp Phe Glu Arg Ser Glu Val Lys Asp Arg His Leu	290		295		300
Val Ala Lys Arg Leu Thr Glu His Val Gln Asp Lys Ser Lys Leu	305		310		315
Pro Ile Leu Ile Phe Pro Glu Gly Thr Cys Ile Asn Asn Thr Ser	320		325		330
Val Met Met Phe Lys Lys Gly Ser Phe Glu Ile Gly Ala Thr Val	335		340		345
Tyr Pro Val Ala Ile Lys Tyr Asp Pro Gln Phe Gly Asp Ala Phe	350		355		360
Trp Asn Ser Ser Lys Tyr Gly Met Val Thr Tyr Leu Leu Arg Met	365		370		375
Met Thr Ser Trp Ala Ile Val Cys Ser Val Trp Tyr Leu Pro Pro	380		385		390
Met Thr Arg Glu Ala Asp Glu Asp Ala Val Gln Phe Ala Asn Arg	395		400		405

Val Lys Ser Ala Ile Ala Arg Gln Gly Gly Leu Val Asp Leu Leu
410 415 420

Trp Asp Gly Gly Leu Lys Arg Glu Lys Val Lys Asp Thr Phe Lys
425 430 435

Glu Glu Gln Gln Lys Leu Tyr Ser Lys Met Ile Val Gly Asn His
440 445 450

Lys Asp Arg Ser Arg Ser
455

<210> 249
<211> 1103
<212> DNA
<213> Homo sapiens

<400> 249
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gcccctggca gcctcggcct ccacacctgg caggcccagg ctgttccac 150
catcctgccc ctgggcctgg ctccagacac ctttgacgat acctatgtgg 200
gttgtgcaga ggagatggag gagaaggcag cccccctgct aaaggaggaa 250
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agaatggaat agccattatg gtctacacca actcatcgaa caccttgtac 400
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tgcagctgct gcgaggcagt gggggctgca gcaggggacc tggggaggtg 550
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cagcagggct gagggaactc tgctatgtga tggggacttc ctgggacaag 1000

caaggaaagt actgaggcag ccacttgatt gaacggtggt gcaatgtgga 1050
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gga 1103

<210> 250
<211> 240
<212> PRT
<213> Homo sapiens

<400> 250
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His Thr Trp Gln Ala Gln Ala Val Pro Thr Ile Leu Pro Leu Gly
20 25 30
Leu Ala Pro Asp Thr Phe Asp Asp Thr Tyr Val Gly Cys Ala Glu
35 40 45
Glu Met Glu Glu Lys Ala Ala Pro Leu Leu Lys Glu Glu Met Ala
50 55 60
His His Ala Leu Leu Arg Glu Ser Trp Glu Ala Ala Gln Glu Thr
65 70 75
Trp Glu Asp Lys Arg Arg Gly Leu Thr Leu Pro Pro Gly Phe Lys
80 85 90
Ala Gln Asn Gly Ile Ala Ile Met Val Tyr Thr Asn Ser Ser Asn
95 100 105
Thr Leu Tyr Trp Glu Leu Asn Gln Ala Val Arg Thr Gly Gly Gly
110 115 120
Ser Arg Glu Leu Tyr Met Arg His Phe Pro Phe Lys Ala Leu His
125 130 135
Phe Tyr Leu Ile Arg Ala Leu Gln Leu Leu Arg Gly Ser Gly Gly
140 145 150
Cys Ser Arg Gly Pro Gly Glu Val Val Phe Arg Gly Val Gly Ser
155 160 165
Leu Arg Phe Glu Pro Lys Arg Leu Gly Asp Ser Val Arg Leu Gly
170 175 180
Gln Phe Ala Ser Ser Ser Leu Asp Lys Ala Val Ala His Arg Phe
185 190 195
Gly Glu Lys Arg Arg Gly Cys Val Ser Ala Pro Gly Val Gln Leu
200 205 210
Gly Ser Gln Ser Glu Gly Ala Ser Ser Leu Pro Pro Trp Lys Thr
215 220 225
Leu Leu Leu Ala Pro Gly Glu Phe Gln Leu Ser Gly Val Gly Pro

atgccagaca caccaaggct atttgccat gagaatgtta tctagacagc 1050

agtgcactcc cctaagtctc tgctca 1076

<210> 253

<211> 335

<212> PRT

<213> Homo sapiens

<400> 253

Met	Ala	Gly	Ser	Pro	Thr	Cys	Leu	Thr	Leu	Ile	Tyr	Ile	Leu	Trp
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Gln	Leu	Thr	Gly	Ser	Ala	Ala	Ser	Gly	Pro	Val	Lys	Glu	Leu	Val
				20					25					30

Gly	Ser	Val	Gly	Gly	Ala	Val	Thr	Phe	Pro	Leu	Lys	Ser	Lys	Val
				35					40					45

Lys	Gln	Val	Asp	Ser	Ile	Val	Trp	Thr	Phe	Asn	Thr	Thr	Pro	Leu
				50					55					60

Val	Thr	Ile	Gln	Pro	Glu	Gly	Gly	Thr	Ile	Ile	Val	Thr	Gln	Asn
				65					70					75

Arg	Asn	Arg	Glu	Arg	Val	Asp	Phe	Pro	Asp	Gly	Gly	Tyr	Ser	Leu
				80					85					90

Lys	Leu	Ser	Lys	Leu	Lys	Lys	Asn	Asp	Ser	Gly	Ile	Tyr	Tyr	Val
				95					100					105

Gly	Ile	Tyr	Ser	Ser	Ser	Leu	Gln	Gln	Pro	Ser	Thr	Gln	Glu	Tyr
				110					115					120

Val	Leu	His	Val	Tyr	Glu	His	Leu	Ser	Lys	Pro	Lys	Val	Thr	Met
				125					130					135

Gly	Leu	Gln	Ser	Asn	Lys	Asn	Gly	Thr	Cys	Val	Thr	Asn	Leu	Thr
				140					145					150

Cys	Cys	Met	Glu	His	Gly	Glu	Glu	Asp	Val	Ile	Tyr	Thr	Trp	Lys
				155					160					165

Ala	Leu	Gly	Gln	Ala	Ala	Asn	Glu	Ser	His	Asn	Gly	Ser	Ile	Leu
				170					175					180

Pro	Ile	Ser	Trp	Arg	Trp	Gly	Glu	Ser	Asp	Met	Thr	Phe	Ile	Cys
				185					190					195

Val	Ala	Arg	Asn	Pro	Val	Ser	Arg	Asn	Phe	Ser	Ser	Pro	Ile	Leu
				200					205					210

Ala	Arg	Lys	Leu	Cys	Glu	Gly	Ala	Ala	Asp	Asp	Pro	Asp	Ser	Ser
				215					220					225

Met	Val	Leu	Leu	Cys	Leu	Leu	Leu	Val	Pro	Leu	Leu	Leu	Ser	Leu
				230					235					240

[illegible]

245

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 cgggtttactc cactgtggaa ataccgaaaa agatggaaaa tccccactca 950
 ctgctcacga tgccagacac accaaggcta tttgcctatg agaatgttat 1000
 ctagacagca gtgcactccc ctaagtctct gctcaaaaaa aaaaaaaaaa 1050
 aaa 1053

<210> 255
 <211> 860
 <212> DNA
 <213> Homo sapiens

<400> 255
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 gatgctgctg ctgctgtgtt tgggactgac cctagtctgt gtccatgcag 100
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 gaatggcata ctattatcct ggcctctgac aaaagagaaa agatagaaga 200
 acatggcaac tttagacttt ttctggagca aatccatgtc ttggagaatt 250
 ccttagttct taaagtccat actgtaagag atgaagagtg ctccgaatta 300
 tctatgggtg ctgacaaaac agaaaaggct ggtgaatatt ctgtgacgta 350
 tgatggattc aatacattta ctatacctaa gacagactat gataactttc 400
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 gggctctatg gccgagaacc agatttgagt tcagacatca aggaaagggt 500
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 tatccaatgc caatcgctgc ctccaggccc gagaatgaag aatggcctga 600
 gcctccagtg ttgagtggac acttctcacc aggactccac catcatccct 650
 tcctatccat acagcatccc cagtataaat tctgtgatct gcattccatc 700
 ctgtctcact gagaagtcca attccagtct atcaacatgt tacctaggat 750
 acctcatcaa gaatcaaaga cttcttttaa tttctctttg atacaccctt 800
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<210> 256
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 256

Met Lys Met Leu Leu Leu Leu Cys Leu Gly Leu Thr Leu Val Cys
1 5 10 15
Val His Ala Glu Glu Ala Ser Ser Thr Gly Arg Asn Phe Asn Val
20 25 30
Glu Lys Ile Asn Gly Glu Trp His Thr Ile Ile Leu Ala Ser Asp
35 40 45
Lys Arg Glu Lys Ile Glu Glu His Gly Asn Phe Arg Leu Phe Leu
50 55 60
Glu Gln Ile His Val Leu Glu Asn Ser Leu Val Leu Lys Val His
65 70 75
Thr Val Arg Asp Glu Glu Cys Ser Glu Leu Ser Met Val Ala Asp
80 85 90
Lys Thr Glu Lys Ala Gly Glu Tyr Ser Val Thr Tyr Asp Gly Phe
95 100 105
Asn Thr Phe Thr Ile Pro Lys Thr Asp Tyr Asp Asn Phe Leu Met
110 115 120
Ala His Leu Ile Asn Glu Lys Asp Gly Glu Thr Phe Gln Leu Met
125 130 135
Gly Leu Tyr Gly Arg Glu Pro Asp Leu Ser Ser Asp Ile Lys Glu
140 145 150
Arg Phe Ala Gln Leu Cys Glu Glu His Gly Ile Leu Arg Glu Asn
155 160 165
Ile Ile Asp Leu Ser Asn Ala Asn Arg Cys Leu Gln Ala Arg Glu
170 175 180

<210> 257

<211> 766

<212> DNA

<213> Homo sapiens

<400> 257

ggctcgagcg tttctgagcc aggggtgacc atgacctgct gcgaaggatg 50
gacatcctgc aatggattca gacctgctgg tctactgctg ttaggagtag 100
ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150
tctcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200
agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250
aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300
agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350
ggctctctta aaaggctctc tcatgtgtaa ttctccaagc aacagtaatg 400

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ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450
ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500
caataaacc accagtaacg acaccatggc gagtggctgg agagcatcta 550
gtttccactt cgattctgaa gaaaacaaac ataggcttat ccactttctca 600
gtatttttag gtctattgct tgttggaatt ctggaggtcc tgtttgggct 650
cagtcagata gtcacggtt tccttggtg tctgtgtgga gtctctaagc 700
gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750
gtttgaaaaa aaaaaa 766

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<210> 258
<211> 229
<212> PRT
<213> Homo sapiens

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<400> 258
Met Thr Cys Cys Glu Gly Trp Thr Ser Cys Asn Gly Phe Ser Leu
  1          5          10          15

Leu Val Leu Leu Leu Gly Val Val Leu Asn Ala Ile Pro Leu
          20          25          30

Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile
          35          40          45

Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu
          50          55          60

Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg
          65          70          75

Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe
          80          85          90

Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser
          95          100          105

Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser
          110          115          120

Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp
          125          130          135

Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser
          140          145          150

Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr
          155          160          165

Met Ala Ser Gly Trp Arg Ala Ser Ser Phe His Phe Asp Ser Glu
          170          175          180

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Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu
 185 190 195

Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile
 200 205 210

Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg
 215 220 225

Ser Gln Ile Val

<210> 259
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 259
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 caccatgagg ctgtcagtggt gtctcctgat ggtctcgctg gccctttgct 100
 gctaccaggc ccattgctctt gtctgcccag ctggttgcttc tgagatcaca 150
 gtctttcttat tcttaagtga cgctgcggta aacctccaag ttgccaaact 200
 taatccacct ccagaagctc ttgcagccaa gttggaagtg aagcactgca 250
 ccgatcagat atcttttaag aaacgactct cattgaaaaa gtcctggtgg 300
 aaatagtga aaaatgtggt gtgtgacatg taaaaatgct caacctggtt 350
 tccaaagtct ttcaacgaca ccttgatctt cactaaaaat tgtaaagggt 400
 tcaacacggt gctttaataa atcaactgcc ctgc 434

<210> 260
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 260
 Met Arg Leu Ser Val Cys Leu Leu Met Val Ser Leu Ala Leu Cys
 1 5 10 15
 Cys Tyr Gln Ala His Ala Leu Val Cys Pro Ala Val Ala Ser Glu
 20 25 30
 Ile Thr Val Phe Leu Phe Leu Ser Asp Ala Ala Val Asn Leu Gln
 35 40 45
 Val Ala Lys Leu Asn Pro Pro Pro Glu Ala Leu Ala Ala Lys Leu
 50 55 60
 Glu Val Lys His Cys Thr Asp Gln Ile Ser Phe Lys Lys Arg Leu
 65 70 75
 Ser Leu Lys Lys Ser Trp Trp Lys

<210> 261
 <211> 636
 <212> DNA
 <213> Homo sapiens

<400> 261
 atccgttctc tgcgctgcc a gctcaggtga gccctcgcca aggtgacctc 50
 gcaggacact ggtgaaggag cagtgaggaa cctgcagagt cacacagttg 100
 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150
 cgccccagtg cctctcccc tgcagccctg cccctcgaa tgtgacatgg 200
 agagagtgc cctggccctt ctctactgg caggcctgac tgccttggaa 250
 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350
 ggatcgcggc agttctgagt ggcaaagca aatacaagag cagccagaag 400
 cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500
 taacactggc cccagcacc tcctccctg ggaggcctta tcctcaagga 550
 aggacttctc tccaagggca ggetgttagg cccctttctg atcaggaggc 600
 ttctttatga attaaactcg cccaccacc ccctca 636

<210> 262
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 262
 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr
 1 5 10 15
 Ala Leu Glu Ala Asn Asp Pro Phe Ala Asn Lys Asp Asp Pro Phe
 20 25 30
 Tyr Tyr Asp Trp Lys Asn Leu Gln Leu Ser Gly Leu Ile Cys Gly
 35 40 45
 Gly Leu Leu Ala Ile Ala Gly Ile Ala Ala Val Leu Ser Gly Lys
 50 55 60
 Cys Lys Tyr Lys Ser Ser Gln Lys Gln His Ser Pro Val Pro Glu
 65 70 75
 Lys Ala Ile Pro Leu Ile Thr Pro Gly Ser Ala Thr Thr Cys
 80 85

<210> 263
 <211> 1676
 <212> DNA
 <213> Homo sapiens

<400> 263
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 ctgagcctgc cctggctggg cctcagaccg gtggcaatgt ccccatggct 100
 actcctgctg ctggttgtgg gtcctgggt actcgccgc atcctggctt 150
 ggacctatgc cttctataac aactgccgc ggctccagt tttccacag 200
 cccccaaaac ggaactggtt ttgggggtcac ctgggcctga tcaactctac 250
 agaggagggc ttgaaggact cgacccagat gtcggccacc tattccagg 300
 gctttacggg atggctgggt cccatcatcc ccttcatcgt tttatgccac 350
 cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcaccaa 400
 ggataatctc ttcacaggt tcctgaagcc ctggctggga gaagggatac 450
 tgctgagtgg cggtgacaag tggagccgc accgtcggat gctgacgcc 500
 gccttcatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550
 tgcaaacatc atgcttgaca agtggcagca cctggcctca gagggcagca 600
 gtgctctgga catgtttgag cacatcagcc tcacgacctt ggacagtcta 650
 cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700
 atatattgcc accatcttgg agctcagtgc ccttgtagag aaaagaagcc 750
 agcatatcct ccagcacatg gactttctgt attacctctc ccatgacggg 800
 cggcgcttcc acagggcctg ccgcctgggt catgacttca cagacgctgt 850
 catccgggag cggcgctgca cctcccccac tcagggtatt gatgattttt 900
 tcaaagacaa agccaagtcc aagactttgg atttcattga tgtgcttctg 950
 ctgagcaagg atgaagatgg gaaggcattg tcagatgagg atataagagc 1000
 agaggctgac accttcatgt ttggaggcca tgacaccacg gccagtggcc 1050
 tctcctgggt cctgtacaac cttgcgaggc acccagaata ccaggagcgc 1100
 tgccgacagg aggtgcaaga gcttctgaag gaccgcatc ctaaagagat 1150
 tgaatgggac gacctggccc agctgccctt cctgaccatg tgcgtgaagg 1200
 agagcctgag gttacatccc ccagctccct tcacctcccg atgctgcacc 1250
 caggacattg ttctccaga tggccgagtc atccccaaag gcattacctg 1300

470	475	480
Val Leu Ala Leu Met Leu Leu His Phe	Arg Phe Leu Pro Asp His	
485	490	495
Thr Glu Pro Arg Arg Lys Leu Glu Leu	Ile Met Arg Ala Glu Gly	
500	505	510
Gly Leu Trp Leu Arg Val Glu Pro Leu	Asn Val Gly Leu Gln	
515	520	

<210> 265
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 265
 caacagaagc caagaaggaa gccgtctatc ttgtggcgat catgtataag 50
 ctggcctcct gctgtttgct tttcacagga ttcttaaadc ctctcttata 100
 tcttcctctc cttgactcca gggaaatata ctttcaactc tcagcacctc 150
 atgaagacgc gcgcttaact ccggaggagc tagaaagagc ttcccttcta 200
 cagatattgc cagagatgct ggggtgcagaa agaggggata ttctcaggaa 250
 agcagactca agtaccaaca tttttaaccc aagaggaaat ttgagaaagt 300
 ttcaggattt ctctggacaa gatcctaaca ttttactgag tcactctttg 350
 gccagaatct ggaaaccata caagaaacgt gagactcctg attgcttctg 400
 gaaatactgt gtctgaagtg aaataagcat ctgttagtca gctcagaaac 450
 acccatctta gaatatgaaa aataacacaa tgcttgattt gaaaacagt 500
 tggagaaaaa ctaggcaaac tacaccctgt tcattgttac ctggaaaata 550
 aatcctctat gttttgcaca aaaaaaaaaa aaaa 584

<210> 266
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 266
 Met Tyr Lys Leu Ala Ser Cys Cys Leu Leu Phe Thr Gly Phe Leu
 1 5 10 15
 Asn Pro Leu Leu Ser Leu Pro Leu Leu Asp Ser Arg Glu Ile Ser
 20 25 30
 Phe Gln Leu Ser Ala Pro His Glu Asp Ala Arg Leu Thr Pro Glu
 35 40 45
 Glu Leu Glu Arg Ala Ser Leu Leu Gln Ile Leu Pro Glu Met Leu
 50 55 60

Gly	Ala	Glu	Arg	Gly	Asp	Ile	Leu	Arg	Lys	Ala	Asp	Ser	Ser	Thr
				65					70					75
Asn	Ile	Phe	Asn	Pro	Arg	Gly	Asn	Leu	Arg	Lys	Phe	Gln	Asp	Phe
				80					85					90
Ser	Gly	Gln	Asp	Pro	Asn	Ile	Leu	Leu	Ser	His	Leu	Leu	Ala	Arg
				95					100					105
Ile	Trp	Lys	Pro	Tyr	Lys	Lys	Arg	Glu	Thr	Pro	Asp	Cys	Phe	Trp
				110					115					120
Lys	Tyr	Cys	Val											

<210> 267
 <211> 654
 <212> DNA
 <213> Homo sapiens

<400> 267
 gaacattttt agttccaag gaatgtacat cagccccacg gaagctaggc 50
 cacctctggg atgggggttg tggtttaaaa caaacgccag tcatcctata 100
 taaggacctg acagccacca ggcaccacct ccgccaggaa ctgcaggccc 150
 acctgtctgc aaccagctg aggccatgcc ctccccaggg accgtctgca 200
 gcctcctgct cctcggcatg ctctggctgg acttggccat ggcaggctcc 250
 agcttctctga gccctgaaca ccagagagtc cagcagagaa aggagtcgaa 300
 gaagccacca gccaaagctgc agccccgagc tctagcaggc tggctccgcc 350
 cggaagatgg aggtcaagca gaaggggcag aggatgaact ggaagtcggg 400
 ttcaacgccc cctttgatgt tggaatcaag ctgtcagggg ttcagtacca 450
 gcagcacagc caggccctgg ggaagtttct tcaggacatc ctctgggaag 500
 aggccaaaga ggccccagcc gacaagtgat cgcccacaag ccttactcac 550
 ctctctctaa gtttagaagc gtcctctgg cttttcgctt gcttctgcag 600
 caactcccac gactgttgta caagctcagg aggccaataa atgttcaaac 650
 tgta 654

<210> 268
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 268
 Met Pro Ser Pro Gly Thr Val Cys Ser Leu Leu Leu Leu Gly Met
 1 5 10 15

Leu Trp Leu Asp Leu Ala Met Ala Gly Ser Ser Phe Leu Ser Pro
 20 25 30
 Glu His Gln Arg Val Gln Gln Arg Lys Glu Ser Lys Lys Pro Pro
 35 40 45
 Ala Lys Leu Gln Pro Arg Ala Leu Ala Gly Trp Leu Arg Pro Glu
 50 55 60
 Asp Gly Gly Gln Ala Glu Gly Ala Glu Asp Glu Leu Glu Val Arg
 65 70 75
 Phe Asn Ala Pro Phe Asp Val Gly Ile Lys Leu Ser Gly Val Gln
 80 85 90
 Tyr Gln Gln His Ser Gln Ala Leu Gly Lys Phe Leu Gln Asp Ile
 95 100 105
 Leu Trp Glu Glu Ala Lys Glu Ala Pro Ala Asp Lys
 110 115

<210> 269
 <211> 1332
 <212> DNA
 <213> Homo sapiens

<400> 269
 cggccacagc tggcatgctc tgccatgatcg ccacccctgct gtatgtcctc 50
 gtccagtagc tcgtgaaccc cgggggtgctc cgcacggacc ccagatgtca 100
 agaatatgaa cacgtggctg ctgttcctcc ccctgttccc ggtgcaggtg 150
 cagaccctga tagtcgtgat catcgggatg ctcgtgctcc tgctggactt 200
 tcttggtctg gtgcacctgg gccagctgct catcttcac atctacctga 250
 gtatgtcccc caccctaagc ccccgatccc cccaaggctg ggtggtcaga 300
 gctgctcatc ttacacctct acttgagtat gtcacctaac ctgagcccc 350
 cagccttggg gccagagtct ttgtcccccg tgtgcgcatg tgttcagggt 400
 cagcctctcc cagaagttag atcatggaca aaaagggcaa atcacaggaa 450
 gaaattaaat ccatgaggac ccagcaggcc cagcaagaag ctgaactcac 500
 gccgagacct gcaggagtgg tgccagggtc ttgaagtaac aagtttaaaa 550
 tgttcagaga caatggaatg gaatctatta ggcaagaaca ggacattatg 600
 aaataaggac aggtggactt ccaaaaacac aagtagaaat tctaacaatg 650
 aaatatatta caggcaggtc acccactaac caaacaactg aagcgagagc 700
 tgtgggtctg cttgggtctca cagtgggcac agcggtaggc ggtcagtcac 750
 gttgctgaac gacggagggt aaactcccca gcccgaagaa aacctgtgtt 800

ggaagtaaca acaacctccc tgctcctggc accagccgtt ttggatcatgg 850
 tgggccagct gcaaagcgtc ttccattctc tgggcagtg tggccccgag 900
 gctgtggcct ctcagggggg ttctgtggac acgggcagca gactgtgtcc 950
 agggccagccc ccaagaatgc cctgctcctg acagcttggc caacccctgg 1000
 tcagggcaga gggagtggg tgggtcaggc tctgggctca cctccatctc 1050
 cagagcatcc cctgcctgca gttgtggcaa gaacgccag ctcagaatga 1100
 acacacccca ccaagagcct cctgtttcat aaccacaggt taccctacaa 1150
 accactgtcc ccacacaacc ctggggatgt tttaaaacac acacctctaa 1200
 cgcatatctt acagtcaactg ttgtcttgcc tgagggttga atttttttta 1250
 atgaaagtgc aatgaaaatc actggattaa atcctacgga cacagagctg 1300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1332

<210> 270
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 270
 Met Asn Thr Trp Leu Leu Phe Leu Pro Leu Phe Pro Val Gln Val
 1 5 10 15
 Gln Thr Leu Ile Val Val Ile Ile Gly Met Leu Val Leu Leu Leu
 20 25 30
 Asp Phe Leu Gly Leu Val His Leu Gly Gln Leu Leu Ile Phe His
 35 40 45
 Ile Tyr Leu Ser Met Ser Pro Thr Leu Ser Pro Arg Ser Pro Gln
 50 55 60
 Gly Trp Val Val Arg Ala Ala His Leu Thr Pro Leu Leu Glu Tyr
 65 70 75
 Val Pro Asn Pro Glu Pro Pro Thr Pro Gly Ala Arg Val Phe Val
 80 85 90
 Pro Arg Val Arg Met Cys Ser Gly Ser Ala Ser Pro Arg Ser Glu
 95 100 105
 Ile Met Asp Lys Lys Gly Lys Ser Gln Glu Glu Ile Lys Ser Met
 110 115 120
 Arg Thr Gln Gln Ala Gln Gln Glu Ala Glu Leu Thr Pro Arg Pro
 125 130 135
 Ala Gly Val Val Pro Gly Ala
 140

<210> 271
 <211> 1484
 <212> DNA
 <213> Homo sapiens

<400> 271
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 accatggcca agatggagct ctcgaaggcc ttctctggcc agcggacact 100
 cctatctgcc atcctcagca tgctatcact cagcttctcc acaacatccc 150
 tgctcagcaa ctactggttt gtgggcacac agaaggtgcc caagcccctg 200
 tgcgagaaag gtctggcagc caagtgcttt gacatgccag tgtccctgga 250
 tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga 300
 ctggggatga ccggttctcc ttccggagct tccggagtgg catgtggcta 350
 tcctgtgagg aaactgtgga agaaccaggg gagaggtgcc gaagtttcat 400
 tgaacttaca ccaccagcca agagaggtga gaaaggacta ctggaatttg 450
 ccacgttgca aggcccatgt caccccaactc tccgatttgg aggggaagcgg 500
 ttgatggaga aggcttcctt cccctccctt cccttggggc tttgtggcaa 550
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 ttcacagctt tcctcctgct actaacagac ttgctactca ctgggaaccc 650
 tgctgtggg ctcaaactga gcgcctttgc tgetgtttcc tctgtcctgt 700
 caggtctcct ggggatgggtg gccacatga tgtattcaca agtcttccaa 750
 gcgactgtca acttgggtcc agaagactgg agaccacatg tttggaatta 800
 tggctgggcc ttctacatgg cctggtcttc cttcacctgc tgcattggct 850
 cggctgtcac caccttcaac acgtacacca ggatgggtgct ggagttcaag 900
 tgcaagcata gtaagagctt caaggaaaac ccgaactgcc taccacatca 950
 ccatcagtgt ttccctcggc ggctgtcaag tgcagcccc accgtgggtc 1000
 ctttgaccag ctaccaccag tatcataatc agcccatcca ctctgtctct 1050
 gagggagtcg acttctactc cgagctgcgg aacaagggat ttcaaagagg 1100
 ggccagccag gagctgaaag aagcagttag gtcattctgta gaggaagagc 1150
 agtgtttagga gttaagcggg tttggggagt aggcttgagc cctaccttac 1200
 acgtctgctg attatcaaca tgtgcttaag ccaacatccg tctcttgagc 1250
 atgggttttta gaggctacga ataaggctat gaataagggt tatctttaag 1300

Asp	Val	Phe	Thr	Ser	Leu	Pro	Ser	Asp	Cys	Gln	Leu	Gly	Ser	Arg
				230					235					240
Arg	Leu	Glu	Thr	Thr	Cys	Leu	Glu	Leu	Trp	Leu	Gly	Leu	Leu	His
				245					250					255
Gly	Leu	Ala	Leu	Leu	His	Leu	Leu	His	Gly	Val	Gly	Cys	His	His
				260					265					270
Leu	Gln	His	Val	His	Gln	Asp	Gly	Ala	Gly	Val	Gln	Val	Gln	Ala
				275					280					285

<210> 273
 <211> 1158
 <212> DNA
 <213> Homo sapiens

<400> 273
 aactggaagg aaagaaagaa aggtcagctt tggcccagat gtggttaccc 50
 cttggtctcc tgtctttatg tctttctcct ctctctattc tgtcatctcc 100
 ctcacttaag tctcaggcct gtcagcagct cctgtggaca ttgccatccc 150
 ctctggttagc cttcagagca aacaggacaa cctatgttat ggatgtttcc 200
 accaaccagg gtagtggcat ggagcaccgt aaccatctgt gcttctgtga 250
 tctctatgac agagccactt ctccacctct gaaatgttcc ctgctctgaa 300
 atctggcatg agatggcaca ggtgaccacg cagaagccac cagaatcttg 350
 cctgccctat tcctcctccc aagtctgttc tcttattgtc aacctcagca 400
 caacaggctg gcgccaatgg cattacagag aaagcaatct gtgtggctag 450
 tgggcagatt accatgcaag cccaggaga aatggaggag ctttgtagcc 500
 acctccctgt cagccagtat taacatgtcc ccttccccct gccccgcgt 550
 agattcagga cattcgcccc tgtgtgccac caaaccagga ctttccccct 600
 ggcttggcat ccctggctct ctctgggtac ccagcaagac gtctgttcca 650
 gggcagtgtg gcatctttca agctccgtta ctatggcgat ggccatgatg 700
 ttacaatccc acttgctga ataataaagt gggaagggga agcagagggga 750
 aatggggcca tgtgaatgca gctgctctgt tctccctacc ctgaggaaaa 800
 accaaaggga agcaacagga acttctgcaa ctggttttta tcggaaagat 850
 catcctgcct gcagatgctg ttgaaggggc acaagaaatg tagctggaga 900
 agattgatga aagtgcaggt gtgtaaggaa atagaacagt ctgctgggag 950
 tcagacctgg aattctgatt ccaaactctt tattactttg ggaagtcact 1000

cagcctcccc gtagccatct ccagggtgac ggaacccagt gtattacctg 1050
 ctggaaccaa ggaaactaac aatgtaggtt actagtgaat accccaatgg 1100
 tttctccaat tatgcccattg ccaccaaacc aataaaacaa aattctctaa 1150
 cactgaaa 1158

<210> 274
 <211> 86
 <212> PRT
 <213> Homo sapiens

<400> 274
 Met Trp Leu Pro Leu Gly Leu Leu Ser Leu Cys Leu Ser Pro Leu
 1 5 10 15
 Pro Ile Leu Ser Ser Pro Ser Leu Lys Ser Gln Ala Cys Gln Gln
 20 25 30
 Leu Leu Trp Thr Leu Pro Ser Pro Leu Val Ala Phe Arg Ala Asn
 35 40 45
 Arg Thr Thr Tyr Val Met Asp Val Ser Thr Asn Gln Gly Ser Gly
 50 55 60
 Met Glu His Arg Asn His Leu Cys Phe Cys Asp Leu Tyr Asp Arg
 65 70 75
 Ala Thr Ser Pro Pro Leu Lys Cys Ser Leu Leu
 80 85

<210> 275
 <211> 2694
 <212> DNA
 <213> Homo sapiens

<400> 275
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 gtcgtggagc caggagcgac gtcaccgcca tggcaggcat caaagctttg 100
 attagtttgt cctttggagg agcaatcgga ctgatgtttt tgatgcttgg 150
 atgtgccctt ccaatataca acaaatactg gcccctcttt gttctatttt 200
 tttacatcct ttcacctatt ccatactgca tagcaagaag attagtggat 250
 gatacagatg ctatgagtaa cgcttgtaag gaacttgcca tctttcttac 300
 aacgggcatt gtcgtgtcag cttttggact ccctattgta tttgccagag 350
 cacatctgat tgagtgggga gcttgtgcac ttgttctcac aggaaacaca 400
 gtcattcttg caactatact aggctttttc ttggtctttg gaagcaatga 450
 cgacttcagc tggcagcagt ggtgaaaaga aattactgaa ctattgtcaa 500

cattcaagtt ggtctgacag tatttttgta aggatatttg tttgtatggt 2000
tattcagtat acttacataa aaattatttc gccatcagcc aaaactcagt 2050
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<210> 276
<211> 131
<212> PRT
<213> Homo sapiens

<400> 276
Met Ala Gly Ile Lys Ala Leu Ile Ser Leu Ser Phe Gly Gly Ala
1 5 10 15
Ile Gly Leu Met Phe Leu Met Leu Gly Cys Ala Leu Pro Ile Tyr
20 25 30
Asn Lys Tyr Trp Pro Leu Phe Val Leu Phe Phe Tyr Ile Leu Ser
35 40 45
Pro Ile Pro Tyr Cys Ile Ala Arg Arg Leu Val Asp Asp Thr Asp
50 55 60
Ala Met Ser Asn Ala Cys Lys Glu Leu Ala Ile Phe Leu Thr Thr
65 70 75
Gly Ile Val Val Ser Ala Phe Gly Leu Pro Ile Val Phe Ala Arg
80 85 90
Ala His Leu Ile Glu Trp Gly Ala Cys Ala Leu Val Leu Thr Gly
95 100 105
Asn Thr Val Ile Phe Ala Thr Ile Leu Gly Phe Phe Leu Val Phe

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Gly Ser Asn Asp Asp Phe Ser Trp Gln Gln Trp			
	125	130	

<210> 277
 <211> 4104
 <212> DNA
 <213> Homo sapiens

<400> 277
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 cacactgcct ggtggaggga aggagcccgg gcgcctctcg ccgctccccg 150
 cgccgcgcgtc cgcacctccc caccgcccgc cgcccgccgc ccgccgcccg 200
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 ggctgtttcc gcggagtaaa aggtggcgcc ggtcagtggc cgtttccaat 300
 gacggacatt aaccagactg tcagatcctg gggagtcgcg agccccgagt 350
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 gaaggcggca ggaaggcgaa gctcgggctc cggcacgtag ttgggaaact 450
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 cgagccgagc agcaaagtga gacattgtgc gcctgccaga tccgccggcc 550
 gcggaccggg gctgcctcgg aaacacagag gggctctctc tcgccctgca 600
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 ccagaaatta tatctgtttt ggagcaagag tgtcataatg tttcagggtta 3950
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[illegible]

<213> Homo sapiens

Arg Arg Asn Lys Val Ala Ile Val Val Ser Ser Leu Asp Trp Val
245 250 255

Trp	Asn	Leu	Glu	Lys	Met	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Tyr	260	265	270
Met	Glu	Pro	His	Val	Phe	Glu	Thr	Val	Pro	His	Leu	Gln	Ser	Leu	275	280	285
Gln	Leu	Asp	Ser	Asn	Arg	Leu	Thr	Tyr	Ile	Glu	Pro	Arg	Ile	Leu	290	295	300
Asn	Ser	Trp	Lys	Ser	Leu	Thr	Ser	Ile	Thr	Leu	Ala	Gly	Asn	Leu	305	310	315
Trp	Asp	Cys	Gly	Arg	Asn	Val	Cys	Ala	Leu	Ala	Ser	Trp	Leu	Ser	320	325	330
Asn	Phe	Gln	Gly	Arg	Tyr	Asp	Gly	Asn	Leu	Gln	Cys	Ala	Ser	Pro	335	340	345
Glu	Tyr	Ala	Gln	Gly	Glu	Asp	Val	Leu	Asp	Ala	Val	Tyr	Ala	Phe	350	355	360
His	Leu	Cys	Glu	Asp	Gly	Ala	Glu	Pro	Thr	Ser	Gly	His	Leu	Leu	365	370	375
Ser	Ala	Val	Thr	Asn	Arg	Ser	Asp	Leu	Gly	Pro	Pro	Ala	Ser	Ser	380	385	390
Ala	Thr	Thr	Leu	Ala	Asp	Gly	Gly	Glu	Gly	Gln	His	Asp	Gly	Thr	395	400	405
Phe	Glu	Pro	Ala	Thr	Val	Ala	Leu	Pro	Gly	Gly	Glu	His	Ala	Glu	410	415	420
Asn	Ala	Val	Gln	Ile	His	Lys	Val	Val	Thr	Gly	Thr	Met	Ala	Leu	425	430	435
Ile	Phe	Ser	Phe	Leu	Ile	Val	Val	Leu	Val	Leu	Tyr	Val	Ser	Trp	440	445	450
Lys	Cys	Phe	Pro	Ala	Ser	Leu	Arg	Gln	Leu	Arg	Gln	Cys	Phe	Val	455	460	465
Thr	Gln	Arg	Arg	Lys	Gln	Lys	Gln	Lys	Gln	Thr	Met	His	Gln	Met	470	475	480
Ala	Ala	Met	Ser	Ala	Gln	Glu	Tyr	Tyr	Val	Asp	Tyr	Lys	Pro	Asn	485	490	495
His	Ile	Glu	Gly	Ala	Leu	Val	Ile	Ile	Asn	Glu	Tyr	Gly	Ser	Cys	500	505	510
Thr	Cys	His	Gln	Gln	Pro	Ala	Arg	Glu	Cys	Glu	Val				515	520	

<210> 279

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 279

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<210> 280

<211> 709

<212> DNA

<213> Homo sapiens

<400> 280

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cacggacttc gacgtcgcag ccaactggag ccagaaccgg accccgtgcg 150
ccggcggcgc cgttgagttc ccggcggaca agatggtgtc agtcctggtg 200
caagaaggtc acgccgtctc agacatgctc ctgccgtgg atggggaact 250
cgtcctggct tcaggagccg gattcggcgt ctcagacgtg ggctcgcacc 300
tggactgtgg cgcgggcgaa cctgccgtct tccgcgactc tgaccgcttc 350
tcctggcatg acccgcacct gtggcgtctt ggggacgagg cacctggcct 400
cttcttcgtg gacgccgagc gcgtgccctg ccgccacgac gacgtcttct 450
ttccgcctag tgcctccttc cgcgtggggc tcggccctgg cgctagcccc 500
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ggccgggcgc gctgagcgtg ggccccgagg actgcgcgga cccgtcgggc 650
tgcgtctgcg gcaacgcgga ggcgcagccg tggatctgcg cggccctgct 700
ccagcccct 709

<210> 281

<211> 229

<212> PRT

<213> Homo sapiens

<400> 281

Met	Gly	Val	Leu	Gly	Arg	Val	Leu	Leu	Trp	Leu	Gln	Leu	Cys	Ala
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Leu	Thr	Gln	Ala	Val	Ser	Lys	Leu	Trp	Val	Pro	Asn	Thr	Asp	Phe
				20					25					30
Asp	Val	Ala	Ala	Asn	Trp	Ser	Gln	Asn	Arg	Thr	Pro	Cys	Ala	Gly
				35					40					45
Gly	Ala	Val	Glu	Phe	Pro	Ala	Asp	Lys	Met	Val	Ser	Val	Leu	Val

0094499.03230.25544660

	50		55		60
Gln Glu Gly His Ala Val Ser Asp Met Leu Leu Pro Leu Asp Gly	65		70		75
Glu Leu Val Leu Ala Ser Gly Ala Gly Phe Gly Val Ser Asp Val	80		85		90
Gly Ser His Leu Asp Cys Gly Ala Gly Glu Pro Ala Val Phe Arg	95		100		105
Asp Ser Asp Arg Phe Ser Trp His Asp Pro His Leu Trp Arg Ser	110		115		120
Gly Asp Glu Ala Pro Gly Leu Phe Phe Val Asp Ala Glu Arg Val	125		130		135
Pro Cys Arg His Asp Asp Val Phe Phe Pro Pro Ser Ala Ser Phe	140		145		150
Arg Val Gly Leu Gly Pro Gly Ala Ser Pro Val Arg Val Arg Ser	155		160		165
Ile Ser Ala Leu Gly Arg Thr Phe Thr Arg Asp Glu Asp Leu Ala	170		175		180
Val Phe Leu Ala Ser Arg Ala Gly Arg Leu Arg Phe His Gly Pro	185		190		195
Gly Ala Leu Ser Val Gly Pro Glu Asp Cys Ala Asp Pro Ser Gly	200		205		210
Cys Val Cys Gly Asn Ala Glu Ala Gln Pro Trp Ile Cys Ala Ala	215		220		225
Leu Leu Gln Pro					

<210> 282
 <211> 644
 <212> DNA
 <213> Homo sapiens

<400> 282
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 tgtgttttgc acttaccctg tgttctgcct tttggtggca taacaagga 150
 cttgcactta tcttctgcat tttgcagtct ttggcattga cgtggtacag 200
 cctttccttc ataccatttg caagggatgc tgtgaagaag tgttttgccg 250
 tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300
 tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350

tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400
catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450
cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500
cctcatgtac ctgttttctc tctggatggt gtccactga attcccatga 550
atacaaacct attcagcaac agcaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 283
<211> 77
<212> PRT
<213> Homo sapiens

<400> 283
Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg
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Leu Ile Ala Thr Ile Met Val Leu Leu Cys Phe Ala Leu Thr Leu
20 25 30
Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe
35 40 45
Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe
50 55 60
Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys
65 70 75
Leu Ala

<210> 284
<211> 2623
<212> DNA
<213> Homo sapiens

<400> 284
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gagagaaaat tagggggaga aaggacagag agagcaacta ccatccatag 200
ccagatagat tatcttacac tgaactgatc aagtactttg aaaatgactt 250
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accttttctc tccaactaga ccagcaaaag gttctactag tttcttttga 350
tggattccgt tgggattact tatataaagt tccaacgccc cattttcatt 400

atattatgaa atatggtggt cacgtgaagc aagttactaa tgtttttatt 450
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 gaatcatggg attggtgcaa atgatatggt tgatcctatt cggaacaaat 550
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 agccatgtgg cccggaacag atgtaaaaat acataagcgc tttcctactc 700
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 aactcacgct catcctaata ttactgttta caaaaaagaa gacgttccag 1150
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 gccacacaat ggatcattct ggaatgtcca ggatctgctc aattcagcaa 1450
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<210> 285

<211> 477

<212> PRT

<213> Homo sapiens

<400> 285

Met	Thr	Ser	Lys	Phe	Ile	Leu	Val	Ser	Phe	Ile	Leu	Ala	Ala	Leu
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Ser	Leu	Ser	Thr	Thr	Phe	Ser	Leu	Gln	Leu	Asp	Gln	Gln	Lys	Val
				20					25					30
Leu	Leu	Val	Ser	Phe	Asp	Gly	Phe	Arg	Trp	Asp	Tyr	Leu	Tyr	Lys
				35					40					45
Val	Pro	Thr	Pro	His	Phe	His	Tyr	Ile	Met	Lys	Tyr	Gly	Val	His
				50					55					60
Val	Lys	Gln	Val	Thr	Asn	Val	Phe	Ile	Thr	Lys	Thr	Tyr	Pro	Asn
				65					70					75
His	Tyr	Thr	Leu	Val	Thr	Gly	Leu	Phe	Ala	Glu	Asn	His	Gly	Ile
				80					85					90
Val	Ala	Asn	Asp	Met	Phe	Asp	Pro	Ile	Arg	Asn	Lys	Ser	Phe	Ser
				95					100					105

taaaacagat gaatgtacaa ttggccgccca agattcaaca ccttgagttc 950
 agctgctctg agaagcccct ggactgatga gtttgctgta tcaacctgta 1000
 aggagaagct ctctccggat ggctatggga atgaaagaat ccgacttcta 1050
 ctctcacaca gccaccgtga aagtccctgga gtaaaatgtg ctgtgtacag 1100
 aagagagaga aggaagcagg ctggcatggt cactgggctg gtgttacgac 1150
 agagaacctg acagtcactg gccagttatc acttcagatt acaaatacaca 1200
 cagagcatct gcctgttttc aatcacaaaga gaacaaaacc aaaatctata 1250
 aagatattct gaaaatatga cagaatttga caaataaaaag cataaacgtg 1300
 taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1337

<210> 287

<211> 255

<212> PRT

<213> Homo sapiens

<400> 287

Met	Ala	Thr	Trp	Asp	Glu	Lys	Ala	Val	Thr	Arg	Arg	Ala	Lys	Val
1				5					10					15
Ala	Pro	Ala	Glu	Arg	Met	Ser	Lys	Phe	Leu	Arg	His	Phe	Thr	Val
			20						25					30
Val	Gly	Asp	Asp	Tyr	His	Ala	Trp	Asn	Ile	Asn	Tyr	Lys	Lys	Trp
			35						40					45
Glu	Asn	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Gln	Pro	Pro	Pro	Thr
			50						55					60
Pro	Val	Ser	Gly	Glu	Glu	Gly	Arg	Ala	Ala	Ala	Pro	Asp	Val	Ala
			65						70					75
Pro	Ala	Pro	Gly	Pro	Ala	Pro	Arg	Ala	Pro	Leu	Asp	Phe	Arg	Gly
			80						85					90
Met	Leu	Arg	Lys	Leu	Phe	Ser	Ser	His	Arg	Phe	Gln	Val	Ile	Ile
			95						100					105
Ile	Cys	Leu	Val	Val	Leu	Asp	Ala	Leu	Leu	Val	Leu	Ala	Glu	Leu
			110						115					120
Ile	Leu	Asp	Leu	Lys	Ile	Ile	Gln	Pro	Asp	Lys	Asn	Asn	Tyr	Ala
			125						130					135
Ala	Met	Val	Phe	His	Tyr	Met	Ser	Ile	Thr	Ile	Leu	Val	Phe	Phe
			140						145					150
Met	Met	Glu	Ile	Ile	Phe	Lys	Leu	Phe	Val	Phe	Arg	Leu	Ser	Ser
			155						160					165
Phe	Thr	Thr	Ser	Leu	Arg	Ser	Trp	Met	Pro	Val	Val	Val	Val	Val

	170		175		180
Ser Phe Ile Leu Asp Ile Val Leu Leu Phe Gln Glu His Gln Phe					
	185		190		195
Glu Ala Leu Gly Leu Leu Ile Leu Leu Arg Leu Trp Arg Val Ala					
	200		205		210
Arg Ile Ile Asn Gly Ile Ile Ile Ser Val Lys Thr Arg Ser Glu					
	215		220		225
Arg Gln Leu Leu Arg Leu Lys Gln Met Asn Val Gln Leu Ala Ala					
	230		235		240
Lys Ile Gln His Leu Glu Phe Ser Cys Ser Glu Lys Pro Leu Asp					
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<210> 288
 <211> 3334
 <212> DNA
 <213> Homo sapiens

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 aagtccattt tcaagctcag tgtcttcac ccctcccagg aattctccac 200
 ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250
 atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300
 aagaagctga ggctggtgtt taagattttg gacaaaaaga atgatggacg 350
 cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400
 tatctgaaca gcaggcagaa aaaattctca agagcatgga taaaaacggc 450
 acgatgacca tcgactggaa cgagtggaga gactaccacc tcctccaccc 500
 cgtggaaaac atccccgaga tcctctctta ctggaagcat tccacgatct 550
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 aatgcaaaaa ttgttatata tgaacatata actggagtcg tcaaaaagca 3200
 aattaagaaa gaattggacg ttagaagttg tcatttaaag cagccttcta 3250
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 289
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 289
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 Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu
 20 25 30
 Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe
 35 40 45
 Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp
 50 55 60

Lys	Asp	Leu	Asp	Gly	Gln	Leu	Asp	Phe	Glu	Glu	Phe	Val	His	Tyr	
				65					70					75	
Leu	Gln	Asp	His	Glu	Lys	Lys	Leu	Arg	Leu	Val	Phe	Lys	Ile	Leu	
				80					85					90	
Asp	Lys	Lys	Asn	Asp	Gly	Arg	Ile	Asp	Ala	Gln	Glu	Ile	Met	Gln	
				95					100					105	
Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu	Gln	Gln	Ala	Glu	
				110					115					120	
Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met	Thr	Ile	Asp	
				125					130					135	
Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val	Glu	Asn	
				140					145					150	
Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe	Asp	
				155					160					165	
Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu	
				170					175					180	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	
				185					190					195	
Ala	Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	
				200					205					210	
Lys	Val	Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	
				215					220					225	
Ile	Val	Gly	Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	
				230					235					240	
Ser	Leu	Trp	Arg	Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	
				245					250					255	
Glu	Ser	Ala	Ile	Lys	Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	
				260					265					270	
Val	Gly	Ser	Asp	Gln	Glu	Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	
				275					280					285	
Ala	Gly	Ser	Leu	Ala	Gly	Ala	Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	
				290					295					300	
Met	Glu	Val	Leu	Lys	Thr	Arg	Met	Ala	Leu	Arg	Lys	Thr	Gly	Gln	
				305					310					315	
Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu	
				320					325					330	
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly	
				335					340					345	
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu	

	350		355		360
Lys Asn Ala Trp	Leu Gln His Tyr Ala	Val Asn Ser Ala Asp	Pro		
	365		370		375
Gly Val Phe Val	Leu Leu Ala Cys Gly	Thr Met Ser Ser Thr	Cys		
	380		385		390
Gly Gln Leu Ala	Ser Tyr Pro Leu Ala	Leu Val Arg Thr Arg	Met		
	395		400		405
Gln Ala Gln Ala	Ser Ile Glu Gly Ala	Pro Glu Val Thr Met	Ser		
	410		415		420
Ser Leu Phe Lys	His Ile Leu Arg Thr	Glu Gly Ala Phe Gly	Leu		
	425		430		435
Tyr Arg Gly Leu	Ala Pro Asn Phe Met	Lys Val Ile Pro Ala	Val		
	440		445		450
Ser Ile Ser Tyr	Val Val Tyr Glu Asn	Leu Lys Ile Thr Leu	Gly		
	455		460		465
Val Gln Ser Arg					

<210> 290
 <211> 1658
 <212> DNA
 <213> Homo sapiens

<400> 290
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 atttcaggga gacactccat cacagtcact actgtcgcct cagctgggaa 200
 cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250
 tttctgatat cgtgatacaa tggctgaagg aagggtgtttt aggcttggtc 300
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350
 cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400
 ctttgccggt gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450
 tataatcatca cttctaaagg caaggggaat gctaactttg agtataaaac 500
 tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550
 agaccttgcg gtgtgaggct ccccgatggg tccccagcc cacagtgggtc 600
 tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650

cagctttgag ctgaactctg agaatgtgac catgaagggt gtgtctgtgc 700
tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750
attgccaaaag caacagggga tatcaaagt acagaatcgg agatcaaaaag 800
gcggagtcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850
ctttctttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900
ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950
acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000
ttctggggagg aaatgaattc atatctagaa gtctggagtg agcaaacaag 1050
agcaagaaac aaaaagaagc caaaagcaga aggctccaat atgaacaaga 1100
taaattctatc ttcaaagaca tattagaagt tgggaaaata attcatgtga 1150
actagacaag tgtgttaaga gtgataagta aaatgcacgt ggagacaagt 1200
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tgtaatgttg ctctgaggaa gcccctggaa agtctatccc aacatatcca 1350
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aattgactgc cacttcgcaa ctacagggcg gctgcatttt agtaatgggt 1450
caaatgattc actttttatg atgcttccaa aggtgccttg gcttctcttc 1500
ccaactgaca aatgccaaaag ttgagaaaaa tgatcataat tttagcataa 1550
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ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
aaaaaaaa 1658

<210> 291
<211> 282
<212> PRT
<213> Homo sapiens

<400> 291
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Ile Ser Gly Arg His Ser Ile Thr Val Thr Thr Val Ala Ser Ala
35 40 45
Gly Asn Ile Gly Glu Asp Gly Ile Leu Ser Cys Thr Phe Glu Pro

50										55					60				
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly					
				65					70					75					
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu					
				80					85					90					
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala					
				95					100					105					
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val					
				110					115					120					
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser					
				125					130					135					
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe					
				140					145					150					
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr					
				155					160					165					
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val					
				170					175					180					
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser					
				185					190					195					
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val					
				200					205					210					
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys					
				215					220					225					
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val					
				230					235					240					
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn					
				245					250					255					
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp					
				260					265					270					
Ala	Leu	Leu	Pro	Leu	Ser	Pro	Tyr	Leu	Met	Leu	Lys								
				275					280										

<210> 292
 <211> 1484
 <212> DNA
 <213> Homo sapiens

<400> 292
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 tgaagcgggc ctccgccggc ctgcagcggg ttcattgagcc gacctggggc 150

cagcagttgc tacaggagat gaagaccctc ttcttgaata ctgagtacct 200
 gatgcccttt ctcctcaacc agtgtggatc ccttctctat tacctcacct 250
 tggcatcgac agatctgacc ctggctgtgc ccatctgtaa ctctctggct 300
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 aaaacgtaag ttagactact gcgagtgcgg gacgcagctc tgtggatctc 400
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 aggacacggc cttttcccat cctgcccttt cctctgcagc tgttttgctt 500
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 gccctgtacc agctcctact ggcattggctg agctcagacc ctctgattt 650
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 aatttcactc tgcatcacia gctcagttag taagaccagc gggcaacagt 750
 ctaccctttg agtggggccga acccacttcc agctctgctg cctccaggaa 800
 gccctggggc catgaagtgc tggcagttag cggatggacc tagcacttcc 850
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 cagccccacc tgactccagc acacctggcg agtagtagct gtcaataaat 1400
 ctatgtaaac agacaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1450
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1484

<210> 293
 <211> 180
 <212> PRT
 <213> Homo sapiens

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aagaacactt tcattttgta agccagtgtt gccaaaggaaa ggaatgcagc 550
aacaccagcg atgccctgga ccttccccctg aagaacgtgt ccagcaacgc 600
agagtgccct gcttggttatg aatctaattg aacttccctgt cgtgggaagc 650
cctggaaatg ctatgaagaa gaacagtgtg tctttctagt tgcagaactt 700
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acgtctgcac caaccacttc ccacaacgtg ggctccaaag cticcctcta 900
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aaaaaaaaaa aaaa 1164

<210> 295
<211> 237
<212> PRT
<213> Homo sapiens

<400> 295
Met Lys Gly Ile Leu Val Ala Gly Ile Thr Ala Val Leu Val Ala
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Ala Val Glu Ser Leu Ser Cys Val Gln Cys Asn Ser Trp Glu Lys
20 25 30
Ser Cys Val Asn Ser Ile Ala Ser Glu Cys Pro Ser His Ala Asn
35 40 45
Thr Ser Cys Ile Ser Ser Ser Ala Ser Ser Ser Leu Glu Thr Pro
50 55 60
Val Arg Leu Tyr Gln Asn Met Phe Cys Ser Ala Glu Asn Cys Ser
65 70 75
Glu Glu Thr His Ile Thr Ala Phe Thr Val His Val Ser Ala Glu
80 85 90
Glu His Phe His Phe Val Ser Gln Cys Cys Gln Gly Lys Glu Cys
95 100 105

Ser	Asn	Thr	Ser	Asp	Ala	Leu	Asp	Pro	Pro	Leu	Lys	Asn	Val	Ser	110	115	120
Ser	Asn	Ala	Glu	Cys	Pro	Ala	Cys	Tyr	Glu	Ser	Asn	Gly	Thr	Ser	125	130	135
Cys	Arg	Gly	Lys	Pro	Trp	Lys	Cys	Tyr	Glu	Glu	Glu	Gln	Cys	Val	140	145	150
Phe	Leu	Val	Ala	Glu	Leu	Lys	Asn	Asp	Ile	Glu	Ser	Lys	Ser	Leu	155	160	165
Val	Leu	Lys	Gly	Cys	Ser	Asn	Val	Ser	Asn	Ala	Thr	Cys	Gln	Phe	170	175	180
Leu	Ser	Gly	Glu	Asn	Lys	Thr	Leu	Gly	Gly	Val	Ile	Phe	Arg	Lys	185	190	195
Phe	Glu	Cys	Ala	Asn	Val	Asn	Ser	Leu	Thr	Pro	Thr	Ser	Ala	Pro	200	205	210
Thr	Thr	Ser	His	Asn	Val	Gly	Ser	Lys	Ala	Ser	Leu	Tyr	Leu	Leu	215	220	225
Ala	Leu	Ala	Ser	Leu	Leu	Leu	Arg	Gly	Leu	Leu	Pro				230	235	

<210> 296
 <211> 1245
 <212> DNA
 <213> Homo sapiens

<400> 296
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 ccagcccat ggtccccgcc gccggcgcg tgctgtgggt cctgctgctg 150
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<210> 297

<211> 341

<212> PRT

<213> Homo sapiens

<400> 297

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Leu	Gly	Pro	Arg	Ala	Ala	Gly	Ala	Gln	Gly	Leu	Thr	Gln	Thr	Pro
				20					25					30
Thr	Glu	Met	Gln	Arg	Val	Ser	Leu	Arg	Phe	Gly	Gly	Pro	Met	Thr
				35					40					45
Arg	Ser	Tyr	Arg	Ser	Thr	Ala	Arg	Thr	Gly	Leu	Pro	Arg	Lys	Thr
				50					55					60
Arg	Ile	Ile	Leu	Glu	Asp	Glu	Asn	Asp	Ala	Met	Ala	Asp	Ala	Asp
				65					70					75
Arg	Leu	Ala	Gly	Pro	Ala	Ala	Ala	Glu	Leu	Leu	Ala	Ala	Thr	Val
				80					85					90
Ser	Thr	Gly	Phe	Ser	Arg	Ser	Ser	Ala	Ile	Asn	Glu	Glu	Asp	Gly
				95					100					105
Ser	Ser	Glu	Glu	Gly	Val	Val	Ile	Asn	Ala	Gly	Lys	Asp	Ser	Thr
				110					115					120
Ser	Arg	Glu	Leu	Pro	Ser	Ala	Thr	Pro	Asn	Thr	Ala	Gly	Ser	Ser
				125					130					135
Ser	Thr	Arg	Phe	Ile	Ala	Asn	Ser	Gln	Glu	Pro	Glu	Ile	Arg	Leu

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Pro Gly Ser Gln Ala Thr Leu Ser Gln Trp Ser Thr Pro Gly Ser		
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Thr Pro Ser Arg Trp Pro Ser Pro Ser Pro Thr Ala Met Pro Ser		
185	190	195
Pro Glu Asp Leu Arg Leu Val Leu Met Pro Trp Gly Pro Trp His		
200	205	210
Cys His Cys Lys Ser Gly Thr Met Ser Arg Ser Arg Ser Gly Lys		
215	220	225
Leu His Gly Leu Ser Gly Arg Leu Arg Val Gly Ala Leu Ser Gln		
230	235	240
Leu Arg Thr Glu His Lys Pro Cys Thr Tyr Gln Gln Cys Pro Cys		
245	250	255
Asn Arg Leu Arg Glu Glu Cys Pro Leu Asp Thr Ser Leu Cys Thr		
260	265	270
Asp Thr Asn Cys Ala Ser Gln Ser Thr Thr Ser Thr Arg Thr Thr		
275	280	285
Thr Thr Pro Phe Pro Thr Ile His Leu Arg Ser Ser Pro Ser Leu		
290	295	300
Pro Pro Ala Ser Pro Cys Pro Ala Leu Ala Phe Trp Lys Arg Val		
305	310	315
Arg Ile Gly Leu Glu Asp Ile Trp Asn Ser Leu Ser Ser Val Phe		
320	325	330
Thr Glu Met Gln Pro Ile Asp Arg Asn Gln Arg		
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<210> 298
 <211> 2692
 <212> DNA
 <213> Homo sapiens

<400> 298
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<210> 299
<211> 320
<212> PRT
<213> Homo sapiens

<400> 299
Met Ala Gly Leu Ala Ala Arg Leu Val Leu Leu Ala Gly Ala Ala
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Asp Cys Val Leu Gln Cys Glu Glu Gln Asn Cys Ser Gly Gly Ala
35 40 45
Leu Asn His Phe Arg Ser Arg Gln Pro Ile Tyr Met Ser Leu Ala
50 55 60
Gly Trp Thr Cys Arg Asp Asp Cys Lys Tyr Glu Cys Met Trp Val
65 70 75

Thr	Val	Gly	Leu	Tyr	Leu	Gln	Glu	Gly	His	Lys	Val	Pro	Gln	Phe	80	85	90
His	Gly	Lys	Trp	Pro	Phe	Ser	Arg	Phe	Leu	Phe	Phe	Gln	Glu	Pro	95	100	105
Ala	Ser	Ala	Val	Ala	Ser	Phe	Leu	Asn	Gly	Leu	Ala	Ser	Leu	Val	110	115	120
Met	Leu	Cys	Arg	Tyr	Arg	Thr	Phe	Val	Pro	Ala	Ser	Ser	Pro	Met	125	130	135
Tyr	His	Thr	Cys	Val	Ala	Phe	Ala	Trp	Val	Ser	Leu	Asn	Ala	Trp	140	145	150
Phe	Trp	Ser	Thr	Val	Phe	His	Thr	Arg	Asp	Thr	Asp	Leu	Thr	Glu	155	160	165
Lys	Met	Asp	Tyr	Phe	Cys	Ala	Ser	Thr	Val	Ile	Leu	His	Ser	Ile	170	175	180
Tyr	Leu	Cys	Cys	Val	Arg	Thr	Val	Gly	Leu	Gln	His	Pro	Ala	Val	185	190	195
Val	Ser	Ala	Phe	Arg	Ala	Leu	Leu	Leu	Leu	Met	Leu	Thr	Val	His	200	205	210
Val	Ser	Tyr	Leu	Ser	Leu	Ile	Arg	Phe	Asp	Tyr	Gly	Tyr	Asn	Leu	215	220	225
Val	Ala	Asn	Val	Ala	Ile	Gly	Leu	Val	Asn	Val	Val	Trp	Trp	Leu	230	235	240
Ala	Trp	Cys	Leu	Trp	Asn	Gln	Arg	Arg	Leu	Pro	His	Val	Arg	Lys	245	250	255
Cys	Val	Val	Val	Val	Leu	Leu	Leu	Gln	Gly	Leu	Ser	Leu	Leu	Glu	260	265	270
Leu	Leu	Asp	Phe	Pro	Pro	Leu	Phe	Trp	Val	Leu	Asp	Ala	His	Ala	275	280	285
Ile	Trp	His	Ile	Ser	Thr	Ile	Pro	Val	His	Val	Leu	Phe	Phe	Ser	290	295	300
Phe	Leu	Glu	Asp	Asp	Ser	Leu	Tyr	Leu	Leu	Lys	Glu	Ser	Glu	Asp	305	310	315
Lys	Phe	Lys	Leu	Asp											320		

<210> 300

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 300

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<210> 301
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 301
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 Met Leu Leu Gly Leu Leu Met Ala Ala Cys Phe Thr Phe Cys Leu
 20 25 30
 Ser His Gln Asn Leu Lys Glu Phe Ala Leu Thr Asn Pro Glu Lys
 35 40 45
 Ser Ser Thr Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu
 50 55 60
 Glu Leu Asp Ala Glu Val Leu Glu Val Phe His Pro Thr His Glu
 65 70 75
 Trp Gln Ala Leu Gln Pro Gly Gln Ala Val Pro Ala Gly Ser His
 80 85 90
 Val Arg Leu Asn Leu Gln Thr Gly Glu Arg Glu Ala Lys Leu Gln
 95 100 105
 Tyr Glu Asp Lys Phe Arg Asn Asn Leu Lys Gly Lys Arg Leu Asp
 110 115 120
 Ile Asn Thr Asn Thr Tyr Thr Ser Gln Asp Leu Lys Ser Ala Leu
 125 130 135
 Ala Lys Phe Lys Glu Gly Ala Glu Met Glu Ser Ser Lys Glu Asp
 140 145 150
 Lys Ala Arg Gln Ala Glu Val Lys Arg Leu Phe Arg Pro Ile Glu
 155 160 165
 Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn Val Val Ile Glu Thr
 170 175 180
 Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys Phe Asn Ser Ser
 185 190 195
 Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala Leu Phe Asp Leu Glu
 200 205 210
 Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu Ser Phe
 215 220 225

Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu Pro	230	235	240
Leu Val Lys Glu Tyr Ala Ala Phe Val Leu Gly Ala Ala Phe Ser	245	250	255
Ser Asn Pro Lys Val Gln Val Glu Ala Ile Glu Gly Gly Ala Leu	260	265	270
Gln Lys Leu Leu Val Ile Leu Ala Thr Glu Gln Pro Leu Thr Ala	275	280	285
Lys Lys Lys Val Leu Phe Ala Leu Cys Ser Leu Leu Arg His Phe	290	295	300
Pro Tyr Ala Gln Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val	305	310	315
Leu Arg Thr Leu Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val	320	325	330
Arg Val Val Thr Leu Leu Tyr Asp Leu Val Thr Glu Lys Met Phe	335	340	345
Ala Glu Glu Glu Ala Glu Leu Thr Gln Glu Met Ser Pro Glu Lys	350	355	360
Leu Gln Gln Tyr Arg Gln Val His Leu Leu Pro Gly Leu Trp Glu	365	370	375
Gln Gly Trp Cys Glu Ile Thr Ala His Leu Leu Ala Leu Pro Glu	380	385	390
His Asp Ala Arg Glu Lys Val Leu Gln Thr Leu Gly Val Leu Leu	395	400	405
Thr Thr Cys Arg Asp Arg Tyr Arg Gln Asp Pro Gln Leu Gly Arg	410	415	420
Thr Leu Ala Ser Leu Gln Ala Glu Tyr Gln Val Leu Ala Ser Leu	425	430	435
Glu Leu Gln Asp Gly Glu Asp Glu Gly Tyr Phe Gln Glu Leu Leu	440	445	450
Gly Ser Val Asn Ser Leu Leu Lys Glu Leu Arg	455	460	

<210> 302
 <211> 2136
 <212> DNA
 <213> Homo sapiens

<400> 302
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2136

<210> 303
 <211> 247
 <212> PRT
 <213> Homo sapiens

<400> 303
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 35 40 45
 Leu Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr
 50 55 60
 Asp Arg Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly
 65 70 75
 Ala Ala Val Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr
 80 85 90
 Tyr Lys Leu Leu Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser
 95 100 105
 Glu Asp Gly Arg Ser Pro Ile Ser Ile Arg Gln Met Ala Tyr Val
 110 115 120
 Ser Gly Leu Ser Phe Gly Ile Ile Ser Gly Val Phe Ser Val Ile
 125 130 135
 Asn Ile Leu Ala Asp Ala Leu Gly Pro Gly Val Val Gly Ile His

	140		145		150
Gly Asp Ser Pro Tyr Tyr Phe Leu Thr Ser Ala Phe Leu Thr Ala					
	155		160		165
Ala Ile Ile Leu Leu His Thr Phe Trp Gly Val Val Phe Phe Asp					
	170		175		180
Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu Gly Leu Val Val Gly					
	185		190		195
Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu Asn Pro Trp Tyr					
	200		205		210
Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val Ser Met Gly					
	215		220		225
Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser Ile Gln					
	230		235		240
Arg Ser Leu Leu Cys Lys Asp					
	245				

<210> 304
 <211> 240
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 108, 123, 126, 154, 198, 206, 217
 <223> unknown base

<400> 304
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 ccttcggnat catcagtggg gtnttntctg ttatcaatat tttggctgat 150
 gcanttgggc caggtgtggg tgggatccat ggagactcac cctattantt 200
 cctganttca gccttntga cagcagccat tatcctgctc 240

<210> 305
 <211> 378
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 58, 94, 132, 186, 191, 220, 240, 248, 280, 311, 332
 <223> unknown base

<400> 305
 gaccgaccgt tcagatgccg ggttcagta cggcttcctg atttttggtg 50
 ctgctgtntc tgtccttcta caggaggtgt tccgctttgc ctantacaag 100

ctgcttaaga aggcagatga ggggttagca tngctgagtg aggacggaag 150
 atcacccatt tccatccgcc agatggccta tgtttntggt ntttccttcg 200
 gtatcatcag tgggtgttttn tctgttatca atattttggn tgatgcantt 250
 gggccaggtg tggttgggat ccatggagan tcacctatt aattcctgaa 300
 ttcagccttt ntgacagcag ccattatcct gntccatacc ttttggggag 350
 ttgtgttttt tgatgcctgt gagaggag 378

<210> 306
 <211> 655
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure
 <222> 1, 22, 129, 133, 184
 <223> unknown base

<400> 306
 ngttggagaa gtggcgcgga cnttcatttg gggtttcggt tccccccctt 50
 tccctttccc cggggtcttg ggtgacattg cacgggcccc tcgtgggggc 100
 gcgttgccac cccacgcgga ctecccagnt ggngcgccct tcccatttgc 150
 ctgtcctggt caggccccca ccccccttcc cacntgacca gccatggggg 200
 ctgcggtggt tttcggtgc actttcgtcg cgttcggccc ggccttcgcg 250
 cttttcttga tcaactgtggc tggggaccgc cttcgcgtta tcatcctggt 300
 cgcaggggca tttttctggc tgggtctccct gctcctggcc tctgtggtct 350
 ggttcatctt ggtccatgtg accgaccggt cagatgcccg gctccagtac 400
 ggcctcctga tttttggtgc tgetgtctct gtccttctac aggaggtggt 450
 ccgctttgcc tactacaagc tgcttaagaa ggcagatgag gggtagcat 500
 cgctgagtga ggacggaaga tcacccatct ccatccgcca gatggcctat 550
 gtttctgggc tctccttcgg tatcatcagt ggtgtcttct ctgttatcaa 600
 tattttgggt gatgcacttg ggccaggtgt ggttgggatc catggagact 650
 ccccc 655

<210> 307
 <211> 650
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> unsure

<222> 52, 89, 128
<223> unknown base

<400> 307
gtaaaagaaa gtggccggac cttcattggg gtttcgggtc cccctttcc 50
cnttccccgg ggtctggggg tgacattgca ccgcgccnt cgtggggtcg 100
cgttgccacc ccacgcggac tccccagntg gcgcgccct cccatttgcc 150
tgtcctggtc aggccccac ccccttccc acctgaccag ccatgggggc 200
tgcggtgttt ttcgggctgc actttcgteg cgttcgggce cggccttcgc 250
gcttttcttg atcaactgtg ctggggaccc gcttcgcgtt atcatcctgg 300
tcgcaggggc atttttctgg ctggtctccc tgctcctggc ctctgtggtc 350
tggttcatct tggatcatgt gaccgaccgg tcagatgcc ggctccagta 400
cggcctcctg atttttgggt ctgctgtctc tgccttcta caggaggtgt 450
tccgctttgc ctactacaag ctgcttaaga aggcagatga ggggttagca 500
tcgctgagtg aggacggaag atcaccatc tccatccgcc agatggccta 550
tgtttctggc ctctccttcg gtatcatcag tgggtgtctc tctgttatca 600
atattttggc tgatgcactt gggccagggtg tgggtgggat ccatggagac 650

<210> 308
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 308
gccccaggga gcagtgggtg gttataactc aggcccggtg cccagagccc 50
aggaggaggc agtggccagg aaggcacagg cctgagaagt ctgcggctga 100
gctgggagca aatccccac cccctacctg ggggacaggg caagtgagac 150
ctggtgaggg tggctcagca ggcagggaag gagaggtgtc tgtgcgtcct 200
gcaccacat ctttctctgt cccctccttg ccctgtctgg aggctgctag 250
actcctatct tctgaattct atagtgcctg ggtctcagcg cagtgccgat 300
ggtggcccgt ccttgtggtt cctctctacc tggggaaata aggtgcagcg 350
gccatggcta cagcaagacc cccctggatg tgggtgctct gtgctctgat 400
cacagccttg cttctggggg tcacagagca tgttctcgcc aacaatgatg 450
tttctgtga ccaccctct aacaccgtgc cctctgggag caaccaggac 500
ctgggagctg gggccgggga agacgcccgg tcggatgaca gcagcagccg 550

catcatcaat ggatccgact gcgatatgca caccagccg tggcaggccg 600
cgctgttgct aaggcccaac cagctctact gcggggcggt gttggtgcat 650
ccacagtggc tgctcacggc cgcccactgc aggaagaaag ttttcagagt 700
ccgtctcggc cactactccc tgtcaccagt ttatgaatct gggcagcaga 750
tgttccaggg ggtcaaatcc atccccacc ctggctactc ccacctggc 800
cactctaacg acctcatgct catcaaactg aacagaagaa ttcgtccac 850
taaagatgtc agacccatca acgtctctctc tcattgtccc tctgctggga 900
caaagtgtt ggtgtctggc tgggggacaa ccaagagccc ccaagtgcac 950
ttccctaagg tcctccagtg cttgaatata agcgtgctaa gtcagaaaag 1000
gtgcgaggat gcttaccga gacagataga tgacaccatg ttctgcgccg 1050
gtgacaaagc aggtagagac tcctgccagg gtgattctgg ggggcctgtg 1100
gtctgcaatg gctccctgca gggactcgtg tcctggggag attacccttg 1150
tgcccgccc aacagaccgg gtgtctacac gaacctctgc aagttacca 1200
agtggatcca ggaaaccatc caggccaact cctgagtcac ccaggactc 1250
agcacaccgg catccccacc tgctgcaggg acagccctga cactcctttc 1300
agaccctcat tccttcccag agatgttgag aatgttcac tctccagccc 1350
ctgaccccat gtctcctgga ctccagggtct gcttccccca cattgggctg 1400
accgtgtctc tctagttgaa ccctgggaac aatttccaaa actgtccagg 1450
gcgggggttg cgtctcaatc tcctggggc actttcatcc tcaagctcag 1500
ggcccatccc ttctctgcag ctctgacca aatttagtcc cagaaataaa 1550
ctgagaagtg gaaaaaaaaa 1570

<210> 309
<211> 293
<212> PRT
<213> Homo sapiens

<400> 309
Met Ala Thr Ala Arg Pro Pro Trp Met Trp Val Leu Cys Ala Leu
1 5 10 15
Ile Thr Ala Leu Leu Leu Gly Val Thr Glu His Val Leu Ala Asn
20 25 30
Asn Asp Val Ser Cys Asp His Pro Ser Asn Thr Val Pro Ser Gly
35 40 45
Ser Asn Gln Asp Leu Gly Ala Gly Ala Gly Glu Asp Ala Arg Ser

50										55					60				
Asp	Asp	Ser	Ser	Ser	Arg	Ile	Ile	Asn	Gly	Ser	Asp	Cys	Asp	Met					
				65					70					75					
His	Thr	Gln	Pro	Trp	Gln	Ala	Ala	Leu	Leu	Leu	Arg	Pro	Asn	Gln					
				80					85					90					
Leu	Tyr	Cys	Gly	Ala	Val	Leu	Val	His	Pro	Gln	Trp	Leu	Leu	Thr					
				95					100					105					
Ala	Ala	His	Cys	Arg	Lys	Lys	Val	Phe	Arg	Val	Arg	Leu	Gly	His					
				110					115					120					
Tyr	Ser	Leu	Ser	Pro	Val	Tyr	Glu	Ser	Gly	Gln	Gln	Met	Phe	Gln					
				125					130					135					
Gly	Val	Lys	Ser	Ile	Pro	His	Pro	Gly	Tyr	Ser	His	Pro	Gly	His					
				140					145					150					
Ser	Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asn	Arg	Arg	Ile	Arg	Pro					
				155					160					165					
Thr	Lys	Asp	Val	Arg	Pro	Ile	Asn	Val	Ser	Ser	His	Cys	Pro	Ser					
				170					175					180					
Ala	Gly	Thr	Lys	Cys	Leu	Val	Ser	Gly	Trp	Gly	Thr	Thr	Lys	Ser					
				185					190					195					
Pro	Gln	Val	His	Phe	Pro	Lys	Val	Leu	Gln	Cys	Leu	Asn	Ile	Ser					
				200					205					210					
Val	Leu	Ser	Gln	Lys	Arg	Cys	Glu	Asp	Ala	Tyr	Pro	Arg	Gln	Ile					
				215					220					225					
Asp	Asp	Thr	Met	Phe	Cys	Ala	Gly	Asp	Lys	Ala	Gly	Arg	Asp	Ser					
				230					235					240					
Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Val	Val	Cys	Asn	Gly	Ser	Leu					
				245					250					255					
Gln	Gly	Leu	Val	Ser	Trp	Gly	Asp	Tyr	Pro	Cys	Ala	Arg	Pro	Asn					
				260					265					270					
Arg	Pro	Gly	Val	Tyr	Thr	Asn	Leu	Cys	Lys	Phe	Thr	Lys	Trp	Ile					
				275					280					285					
Gln	Glu	Thr	Ile	Gln	Ala	Asn	Ser												
				290															

<210> 310

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 310
tcctgtgacc acccctctaa cacc 24

<210> 311
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 311
ctggaacatc tgctgccag attc 24

<210> 312
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
gtcggatgac agcagcagcc gcatcatcaa tggatccgac tgcgatatgc 50

<210> 313
<211> 3010
<212> DNA
<213> Homo sapiens

<400> 313
atgggtcaacg accggtggaa gaccatgggc ggcgctgccc aacttgagga 50
ccggccgcgc gacaagccgc agcggccgag ctgcggctac gtgctgtgca 100
ccgtgctgct ggccctggct gtgctgctgg ctgtagctgt caccggtgcc 150
gtgctcttcc tgaaccacgc ccacgcgccg ggcacggcgc cccacactgt 200
cgtcagcaact gggggtgcca gcgccaacag cgccctggtc actgtggaaa 250
gggcggaacag ctgcacctc agcatcctca ttgaccgcgc ctgccccgac 300
ctcaccgaca gcttcgcacg cctggagagc gccaggcct cgggtgctgca 350
ggcgtgaca gagcaccagg ccagccacg gctggtgggc gaccaggagc 400
aggagctgct ggacacgctg gccgaccagc tgccccggct gctggcccga 450
gcctcagagc tgcagacgga gtgcatgggg ctgcggaagg ggcattggcac 500
gctggggccag ggcctcagcg ccctgcagag tgagcagggc cgcctcatcc 550
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gtttgtgctt aaaaaacaat aaatttgact tggcaccact ggggggttgt 2950
gggagaggcc gtgtgacctg gctctctgtc ccagtgccac caggtcatcc 3000
acatgcgcag 3010

<210> 314
<211> 461
<212> PRT
<213> Homo sapiens

<400> 314
Met Val Asn Asp Arg Trp Lys Thr Met Gly Gly Ala Ala Gln Leu
1 5 10 15
Glu Asp Arg Pro Arg Asp Lys Pro Gln Arg Pro Ser Cys Gly Tyr
20 25 30
Val Leu Cys Thr Val Leu Leu Ala Leu Ala Val Leu Leu Ala Val
35 40 45
Ala Val Thr Gly Ala Val Leu Phe Leu Asn His Ala His Ala Pro
50 55 60
Gly Thr Ala Pro Pro Pro Val Val Ser Thr Gly Ala Ala Ser Ala
65 70 75
Asn Ser Ala Leu Val Thr Val Glu Arg Ala Asp Ser Ser His Leu

Gly Asp Ser Leu Leu Lys His Ser Gly Met Arg Phe Thr Thr Lys
380 385 390

Asp Arg Asp Ser Asp His Ser Glu Asn Asn Cys Ala Ala Phe Tyr
395 400 405

Arg Gly Ala Trp Trp Tyr Arg Asn Cys His Thr Ser Asn Leu Asn
410 415 420

Gly Gln Tyr Leu Arg Gly Ala His Ala Ser Tyr Ala Asp Gly Val
425 430 435

Glu Trp Ser Ser Trp Thr Gly Trp Gln Tyr Ser Leu Lys Phe Ser
440 445 450

Glu Met Lys Ile Arg Pro Val Arg Glu Asp Arg
455 460

<210> 315
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 315
cacacgtcca acctcaatgg gcag 24

<210> 316
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 316
gaccagcagg gccaaaggaca agg 23

<210> 317
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 317
gttctctgag atgaagatcc ggccgggtccg ggagtaccgc ttag 44

<210> 318
<211> 1841
<212> DNA
<213> Homo sapiens

<400> 318
gcagtcagag acttccctcg cccctcgctg ggaaagaaca ttaggaatgc 50

ctttttagtgc cttgtcttct gaactagctc acagtagccc ggcggcccag 100
 ggcaatccga ccacatttca ctctcaccgc tgtaggaatc cagatgcagg 150
 ccaagtacag cagcacgagg gacatgctgg atgatgatgg ggacaccacc 200
 atgagcctgc attctcaagc ctctgccaca actcggcatc cagagccccg 250
 gcgcacagag cacagggctc cctcttcaac gtggcgacca gtggccctga 300
 ccctgctgac tttgtgcttg gtgctgctga tagggctggc agccctgggg 350
 cttttgtttt ttcagtacta ccagctctcc aatactggtc aagacaccat 400
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 aagacagcaa aagttgggag gactgtaaat atttctgcct tagtgaaaac 650
 tctaccatgc tgaagataaa caaacaagaa gacctggaat ttgccgcgtc 700
 tcagagctac tctgagtttt tctactotta ttggacaggg cttttgcgcc 750
 ctgacagtgg caaggcctgg ctgtggatgg atggaacccc ttctacttct 800
 gaactgttcc atattataat agatgtcacc agcccaagaa gcagagactg 850
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 ctacaaaatag cagagtgagc caggcgggtc caaagcaagg gctagttgag 1050
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 aaaatgggtt ctctgttttc ctgttcagga tcaccagcat ttctgagctt 1150
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 caaccaacct cagaaacca taatgtcatc tgcttcttg gcttagagat 1250
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 tacattgagg taacatcctt ttctctgaca gtcaagtagt ccatcagaaa 1400
 ttggcagtca cttcccagat tgtaccagca aatacacaag gaattctttt 1450
 tgtttgtttc agttcatact agtcccttcc caatccatca gtaaagacct 1500

catctgcctt gtccatgccg tttcccaaca gggatgtcac ttgatatgag 1550
aatctcaaat ctcaatgcct tataagcatt ccttcctgtg tccattaaga 1600
ctctgataat tgtctccctt ccataggaat ttctcccagg aaagaaatat 1650
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gagagattaa agaccagaaa aaagtgagcc tcttcatctg cacctgtaat 1750
agtttcagtt cctatcttct tccattgacc catatttata cctttcaggt 1800
actgaagatt taataataat aaatgtaaact actgtgaaaa a 1841

<210> 319

<211> 280

<212> PRT

<213> Homo sapiens

<400> 319

Met	Gln	Ala	Lys	Tyr	Ser	Ser	Thr	Arg	Asp	Met	Leu	Asp	Asp	Asp	1	5	10	15
Gly	Asp	Thr	Thr	Met	Ser	Leu	His	Ser	Gln	Ala	Ser	Ala	Thr	Thr	20	25	30	
Arg	His	Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	35	40	45	
Thr	Trp	Arg	Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	50	55	60	
Leu	Leu	Ile	Gly	Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	65	70	75	
Tyr	Gln	Leu	Ser	Asn	Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	80	85	90	
Glu	Arg	Leu	Gly	Asn	Thr	Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	95	100	105	
Gln	Asn	Ile	Lys	Leu	Ala	Gly	Ser	Leu	Gln	His	Val	Ala	Glu	Lys	110	115	120	
Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys	Ala	Gly	Ala	His	Arg	Cys	Ser	125	130	135	
Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His	Gly	Asp	Asn	Cys	Tyr	Gln	140	145	150	
Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp	Cys	Lys	Tyr	Phe	Cys	155	160	165	
Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn	Lys	Gln	Glu	Asp	170	175	180	
Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe	Phe	Tyr	Ser	185	190	195	

Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala	Trp	Leu
				200					205					210
Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile	Ile
				215					220					225
Ile	Asp	Val	Thr	Ser	Pro	Arg	Ser	Arg	Asp	Cys	Val	Ala	Ile	Leu
				230					235					240
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys
				245					250					255
Val	Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His
				260					265					270
Val	Pro	Pro	Glu	Thr	Leu	Gly	Glu	Gly	Asp					
				275					280					

<210> 320
 <211> 468
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 59, 95, 149, 331, 364, 438, 446
 <223> unknown base

<400> 320
 aattttcacc gctgtaggaa tccagatgca ggccaagtac agcagcacga 50
 gggacatgnt ggatgatgat gggacaccac catgagcctg cattntcaag 100
 cttttgccac aattcggcat ccagagcccc ggcgcacaga gcacagggnt 150
 cctttttcaa cgtggcgacc agtggccctg accctgctga ctttgtgctt 200
 ggtgctgctg atagggctgg cagccctggg gcttttgttt tttcagtact 250
 accagctctc caatactggt caagacacca tttctcaaat ggaagaaaga 300
 ttaggaaata cgtcccaaga gttgcaattt nttcaagtcc agaataataa 350
 gcttgcagga agtntgcagc atgtggctga aaaactctgt cgtgagctgt 400
 ataacaaagc tggaggaact ttgaaggagg gcaaagtntc ctcatntact 450
 atacacacac cacttccc 468

<210> 321
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 321

atgcaggcca agtacagcag cac 23

<210> 322

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 322

catgctgacg acttcctgca agc 23

<210> 323

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 323

ccacacagtc tctgcttctt ggg 23

<210> 324

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 324

atgctggatg atgatgggga caccaccatg agcctgcatt 40

<210> 325

<211> 2988

<212> DNA

<213> Homo sapiens

<400> 325

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ggcgcgccgg cccaactcgg tgcagcccgg agcggagcgc gagaagcccg 450

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 gctccctgcc tttaataaac tggccaagtg tggaaaaa 2988

<210> 326
 <211> 775
 <212> PRT
 <213> Homo sapiens

<400> 326
 Met Arg Ala Ser Leu Leu Leu Ser Val Leu Arg Pro Ala Gly Pro
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 Val Ala Val Gly Ile Ser Leu Gly Phe Thr Leu Ser Leu Leu Ser
 20 25 30
 Val Thr Trp Val Glu Glu Pro Cys Gly Pro Gly Pro Pro Gln Pro
 35 40 45

Gly	Asp	Ser	Glu	Leu	Pro	Pro	Arg	Gly	Asn	Thr	Asn	Ala	Ala	Arg	
				50					55					60	
Arg	Pro	Asn	Ser	Val	Gln	Pro	Gly	Ala	Glu	Arg	Glu	Lys	Pro	Gly	
				65					70					75	
Ala	Gly	Glu	Gly	Ala	Gly	Glu	Asn	Trp	Glu	Pro	Arg	Val	Leu	Pro	
				80					85					90	
Tyr	His	Pro	Ala	Gln	Pro	Gly	Gln	Ala	Ala	Lys	Lys	Ala	Val	Arg	
				95					100					105	
Thr	Arg	Tyr	Ile	Ser	Thr	Glu	Leu	Gly	Ile	Arg	Gln	Arg	Leu	Leu	
				110					115					120	
Val	Ala	Val	Leu	Thr	Ser	Gln	Thr	Thr	Leu	Pro	Thr	Leu	Gly	Val	
				125					130					135	
Ala	Val	Asn	Arg	Thr	Leu	Gly	His	Arg	Leu	Glu	Arg	Val	Val	Phe	
				140					145					150	
Leu	Thr	Gly	Ala	Arg	Gly	Arg	Arg	Ala	Pro	Pro	Gly	Met	Ala	Val	
				155					160					165	
Val	Thr	Leu	Gly	Glu	Glu	Arg	Pro	Ile	Gly	His	Leu	His	Leu	Ala	
				170					175					180	
Leu	Arg	His	Leu	Leu	Glu	Gln	His	Gly	Asp	Asp	Phe	Asp	Trp	Phe	
				185					190					195	
Phe	Leu	Val	Pro	Asp	Thr	Thr	Tyr	Thr	Glu	Ala	His	Gly	Leu	Ala	
				200					205					210	
Arg	Leu	Thr	Gly	His	Leu	Ser	Leu	Ala	Ser	Ala	Ala	His	Leu	Tyr	
				215					220					225	
Leu	Gly	Arg	Pro	Gln	Asp	Phe	Ile	Gly	Gly	Glu	Pro	Thr	Pro	Gly	
				230					235					240	
Arg	Tyr	Cys	His	Gly	Gly	Phe	Gly	Val	Leu	Leu	Ser	Arg	Met	Leu	
				245					250					255	
Leu	Gln	Gln	Leu	Arg	Pro	His	Leu	Glu	Gly	Cys	Arg	Asn	Asp	Ile	
				260					265					270	
Val	Ser	Ala	Arg	Pro	Asp	Glu	Trp	Leu	Gly	Arg	Cys	Ile	Leu	Asp	
				275					280					285	
Ala	Thr	Gly	Val	Gly	Cys	Thr	Gly	Asp	His	Glu	Gly	Val	His	Tyr	
				290					295					300	
Ser	His	Leu	Glu	Leu	Ser	Pro	Gly	Glu	Pro	Val	Gln	Glu	Gly	Asp	
				305					310					315	
Pro	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro	
				320					325					330	
Val	His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	

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 02220 2554660

	335		340		345
Glu Arg Thr Tyr	Gln Glu Ile Gln Glu	Leu Gln Trp Glu Ile Gln			
	350	355			360
Asn Thr Ser His	Leu Ala Val Asp Gly	Asp Arg Ala Ala Ala Trp			
	365	370			375
Pro Val Gly Ile	Pro Ala Pro Ser Arg	Pro Ala Ser Arg Phe Glu			
	380	385			390
Val Leu Arg Trp	Asp Tyr Phe Thr Glu	Gln His Ala Phe Ser Cys			
	395	400			405
Ala Asp Gly Ser	Pro Arg Cys Pro Leu	Arg Gly Ala Asp Arg Ala			
	410	415			420
Asp Val Ala Asp	Val Leu Gly Thr Ala	Leu Glu Glu Leu Asn Arg			
	425	430			435
Arg Tyr His Pro	Ala Leu Arg Leu Gln	Lys Gln Gln Leu Val Asn			
	440	445			450
Gly Tyr Arg Arg	Phe Asp Pro Ala Arg	Gly Met Glu Tyr Thr Leu			
	455	460			465
Asp Leu Gln Leu	Glu Ala Leu Thr Pro	Gln Gly Gly Arg Arg Pro			
	470	475			480
Leu Thr Arg Arg	Val Gln Leu Leu Arg	Pro Leu Ser Arg Val Glu			
	485	490			495
Ile Leu Pro Val	Pro Tyr Val Thr Glu	Ala Ser Arg Leu Thr Val			
	500	505			510
Leu Leu Pro Leu	Ala Ala Ala Glu Arg	Asp Leu Ala Pro Gly Phe			
	515	520			525
Leu Glu Ala Phe	Ala Thr Ala Ala Leu	Glu Pro Gly Asp Ala Ala			
	530	535			540
Ala Ala Leu Thr	Leu Leu Leu Leu Tyr	Glu Pro Arg Gln Ala Gln			
	545	550			555
Arg Val Ala His	Ala Asp Val Phe Ala	Pro Val Lys Ala His Val			
	560	565			570
Ala Glu Leu Glu	Arg Arg Phe Pro Gly	Ala Arg Val Pro Trp Leu			
	575	580			585
Ser Val Gln Thr	Ala Ala Pro Ser Pro	Leu Arg Leu Met Asp Leu			
	590	595			600
Leu Ser Lys Lys	His Pro Leu Asp Thr	Leu Phe Leu Leu Ala Gly			
	605	610			615
Pro Asp Thr Val	Leu Thr Pro Asp Phe	Leu Asn Arg Cys Arg Met			
	620	625			630

His	Ala	Ile	Ser	Gly	Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln
				635					640					645
Ala	Phe	His	Pro	Gly	Val	Ala	Pro	Pro	Gln	Gly	Pro	Gly	Pro	Pro
				650					655					660
Glu	Leu	Gly	Arg	Asp	Thr	Gly	Arg	Phe	Asp	Arg	Gln	Ala	Ala	Ser
				665					670					675
Glu	Ala	Cys	Phe	Tyr	Asn	Ser	Asp	Tyr	Val	Ala	Ala	Arg	Gly	Arg
				680					685					690
Leu	Ala	Ala	Ala	Ser	Glu	Gln	Glu	Glu	Glu	Leu	Leu	Glu	Ser	Leu
				695					700					705
Asp	Val	Tyr	Glu	Leu	Phe	Leu	His	Phe	Ser	Ser	Leu	His	Val	Leu
				710					715					720
Arg	Ala	Val	Glu	Pro	Ala	Leu	Leu	Gln	Arg	Tyr	Arg	Ala	Gln	Thr
				725					730					735
Cys	Ser	Ala	Arg	Leu	Ser	Glu	Asp	Leu	Tyr	His	Arg	Cys	Leu	Gln
				740					745					750
Ser	Val	Leu	Glu	Gly	Leu	Gly	Ser	Arg	Thr	Gln	Leu	Ala	Met	Leu
				755					760					765
Leu	Phe	Glu	Gln	Glu	Gln	Gly	Asn	Ser	Thr					
				770					775					

<210> 327

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 327

tggaaggctg ccgcaacgac aatc 24

<210> 328

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 328

ctgatgtggc cgatgttctg 20

<210> 329

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 329
atggctcagt gtgcagacag 20

<210> 330
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 330
gcatgctgct ccgtgaagta gtcc 24

<210> 331
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 331
atgcatggga aagaaggcct gccc 24

<210> 332
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 332
tgactgggtg accacgaggg ggtgcactat agccatctgg agctgag 47

<210> 333
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 333
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gcctcctctg attggcaagc gctggccacc tccccacacc ccttgcaaac 100
gctcccctag tggagaaaag gagtagctat tagccaattc ggcagggccc 150
gcttttttaga agcttgattt cctttgaaga tgaaagacta gcggaagctc 200
tgctcttttc ccagtgggc gagggaaactc ggggcgattg gctgggaact 250
gtatccacc aaatgtcacc gatttcttcc tatgcaggaa atgagcagac 300
ccatcaataa gaaatttctc agcctggccg aaaatggttg gccccacgaa 350

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 ctgcttcgac cccagcaaga tccagctgcc agaggatgag tgaccagttg 1000
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 tgacctcttc tcagagcacc taattaaagg ggctgaaagt ctgaa 1095

<210> 334
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 334
 Met Ala Ala Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala
 1 5 10 15
 Ala Ala Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu
 20 25 30
 Ser Ser Phe Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly
 35 40 45
 Lys Arg Pro Pro Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu
 50 55 60
 Pro Glu Asp Glu Asn Leu Tyr Glu Lys Asn Pro Asp Ser His Gly
 65 70 75
 Tyr Asp Lys Asp Pro Val Leu Asp Val Trp Asn Met Arg Leu Val
 80 85 90
 Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly Ser Thr Phe
 95 100 105
 Val Ala Tyr Leu Pro Asp Tyr Arg Met Lys Glu Trp Ser Arg Arg

	110		115		120									
Glu	Ala	Glu	Arg	Leu	Val	Lys	Tyr	Arg	Glu	Ala	Asn	Gly	Leu	Pro
				125					130					135
Ile	Met	Glu	Ser	Asn	Cys	Phe	Asp	Pro	Ser	Lys	Ile	Gln	Leu	Pro
				140					145					150

Glu Asp Glu

<210> 335
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 335
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 agaagaacc agactcccat ggttatgaca aggaccccg tttggacgct 250
 tggaacatgc gacttgctt cttctttggc gtctccatca tcttggtcct 300
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<210> 336
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 336
 ctgagaccct gcagaccat ctg 23

<210> 337
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 337
 ggtgcttctt gagccccact tagc 24

<210> 338

ctgcatgccc agcgggtacgt gagtggctat gggctgcaga agggggagct 1100
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gtagtggatg gagtttactg tttgtggaat aaaaacggct gtttccgtgg 2150
aaaaaaaaaa aa 2162

<210> 340
<211> 574
<212> PRT
<213> Homo sapiens

<400> 340
Met Pro Leu Ala Leu Leu Val Leu Leu Leu Gly Pro Gly Gly
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Trp Cys Leu Ala Glu Pro Pro Arg Asp Ser Leu Arg Glu Glu Leu
20 25 30

Val	Ile	Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	Gln	35	40	45
Phe	Arg	Thr	Arg	Trp	Asp	Ser	Glu	Leu	Gln	Arg	Glu	Gly	Val	Ser	50	55	60
His	Tyr	Arg	Leu	Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	Lys	65	70	75
Tyr	Ser	Leu	Arg	Glu	Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	Trp	80	85	90
Arg	Thr	Arg	Tyr	Trp	Gly	Pro	Pro	Phe	Leu	Gln	Ala	Pro	Ser	Gly	95	100	105
Ala	Glu	Leu	Trp	Val	Trp	Phe	Gln	Asp	Thr	Val	Thr	Asp	Val	Asp	110	115	120
Lys	Ser	Trp	Lys	Glu	Leu	Ser	Asn	Val	Leu	Ser	Gly	Ile	Phe	Cys	125	130	135
Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr	Asn	Thr	Val	Thr	Pro	Thr	140	145	150
Ala	Ser	Phe	Lys	Pro	Leu	Gly	Leu	Ala	Asn	Asp	Thr	Asp	His	Tyr	155	160	165
Phe	Leu	Arg	Tyr	Ala	Val	Leu	Pro	Arg	Glu	Val	Val	Cys	Thr	Glu	170	175	180
Asn	Leu	Thr	Pro	Trp	Lys	Lys	Leu	Leu	Pro	Cys	Ser	Ser	Lys	Ala	185	190	195
Gly	Leu	Ser	Val	Leu	Leu	Lys	Ala	Asp	Arg	Leu	Phe	His	Thr	Ser	200	205	210
Tyr	His	Ser	Gln	Ala	Val	His	Ile	Arg	Pro	Val	Cys	Arg	Asn	Ala	215	220	225
Arg	Cys	Thr	Ser	Ile	Ser	Trp	Glu	Leu	Arg	Gln	Thr	Leu	Ser	Val	230	235	240
Val	Phe	Asp	Ala	Phe	Ile	Thr	Gly	Gln	Gly	Lys	Lys	Asp	Trp	Ser	245	250	255
Leu	Phe	Arg	Met	Phe	Ser	Arg	Thr	Leu	Thr	Glu	Pro	Cys	Pro	Leu	260	265	270
Ala	Ser	Glu	Ser	Arg	Val	Tyr	Val	Asp	Ile	Thr	Thr	Tyr	Asn	Gln	275	280	285
Asp	Asn	Glu	Thr	Leu	Glu	Val	His	Pro	Pro	Pro	Thr	Thr	Thr	Tyr	290	295	300
Gln	Asp	Val	Ile	Leu	Gly	Thr	Arg	Lys	Thr	Tyr	Ala	Ile	Tyr	Asp	305	310	315
Leu	Leu	Asp	Thr	Ala	Met	Ile	Asn	Asn	Ser	Arg	Asn	Leu	Asn	Ile			

	320		325		330
Gln Leu Lys Trp	Lys Arg Pro Pro Glu	Asn Glu Ala Pro Pro	Val		
	335		340		345
Pro Phe Leu His	Ala Gln Arg Tyr Val	Ser Gly Tyr Gly Leu	Gln		
	350		355		360
Lys Gly Glu Leu	Ser Thr Leu Leu Tyr	Asn Thr His Pro Tyr	Arg		
	365		370		375
Ala Phe Pro Val	Leu Leu Leu Asp Thr	Val Pro Trp Tyr Leu	Arg		
	380		385		390
Leu Tyr Val His	Thr Leu Thr Ile Thr	Ser Lys Gly Lys Glu	Asn		
	395		400		405
Lys Pro Ser Tyr	Ile His Tyr Gln Pro	Ala Gln Asp Arg Leu	Gln		
	410		415		420
Pro His Leu Leu	Glu Met Leu Ile Gln	Leu Pro Ala Asn Ser	Val		
	425		430		435
Thr Lys Val Ser	Ile Gln Phe Glu Arg	Ala Leu Leu Lys Trp	Thr		
	440		445		450
Glu Tyr Thr Pro	Asp Pro Asn His Gly	Phe Tyr Val Ser Pro	Ser		
	455		460		465
Val Leu Ser Ala	Leu Val Pro Ser Met	Val Ala Ala Lys Pro	Val		
	470		475		480
Asp Trp Glu Glu	Ser Pro Leu Phe Asn	Ser Leu Phe Pro Val	Ser		
	485		490		495
Asp Gly Ser Asn	Tyr Phe Val Arg Leu	Tyr Thr Glu Pro Leu	Leu		
	500		505		510
Val Asn Leu Pro	Thr Pro Asp Phe Ser	Met Pro Tyr Asn Val	Ile		
	515		520		525
Cys Leu Thr Cys	Thr Val Val Ala Val	Cys Tyr Gly Ser Phe	Tyr		
	530		535		540
Asn Leu Leu Thr	Arg Thr Phe His Ile	Glu Glu Pro Arg Thr	Gly		
	545		550		555
Gly Leu Ala Lys	Arg Leu Ala Asn Leu	Ile Arg Arg Ala Arg	Gly		
	560		565		570
Val Pro Pro Leu					

<210> 341
 <211> 24
 <212> DNA
 <213> Artificial Sequence

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gtcagagaag agaaactggg cctcaccaga tgctgaatct gctgggtgcct 700
tgatcttgga cttcccagcc tctagaactg taagaaataa atatttgctg 750
tttataatcc aa 762

<210> 345
<211> 111
<212> PRT
<213> Homo sapiens

<400> 345
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Val Thr Leu Val Ala Val Glu Gly Val Lys Glu Gly Ile Glu Lys
20 25 30
Ala Gly Val Cys Pro Ala Asp Asn Val Arg Cys Phe Lys Ser Asp
35 40 45
Pro Pro Gln Cys His Thr Asp Gln Asp Cys Leu Gly Glu Arg Lys
50 55 60
Cys Cys Tyr Leu His Cys Gly Phe Lys Cys Val Ile Pro Val Lys
65 70 75
Glu Leu Glu Glu Gly Gly Asn Lys Asp Glu Asp Val Ser Arg Pro
80 85 90
Tyr Pro Glu Pro Gly Trp Glu Ala Lys Cys Pro Gly Ser Ser Ser
95 100 105
Thr Arg Cys Pro Gln Lys
110

<210> 346
<211> 2528
<212> DNA
<213> Homo sapiens

<400> 346
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gccccaggac atgcagaacc ttcctctaga acccgaccca ccaccatgag 150
gtcctgcctg tggagatgca ggcacctgag ccaaggcgtc cagtggctct 200
tgcttctggc tgtcctggtc ttctttctct tcgccttgcc ctcttttatt 250
aaggagcctc aaacaaagcc ttccaggcat caacgcacag agaacattaa 300

agaaaggtct ctacagtccc tggcaaagcc taagtcccag gcacccacaa 350
 gggcgaggag gacaaccatc tatgcagagc cagcgccaga gaacaatgcc 400
 ctcaacacac aaaccacagc caaggcccac accaccggag acagaggaaa 450
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 aactgtcac ccagagggca agatgcaggg atggcctctg gcaggacaga 600
 ggcacaatca tggaagagcc aggacacaaa gacgaccaa ggaaatggg 650
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 aacactttgc accacccttt ggcttcatgg agctcaacta ctcttggtg 1150
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 ggccagcctc cccgctggga gcctccgggtg catcacctgt gccgtggtgg 1250
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 cccagtcact ccttatattg ggcaatcggg gtttcaagaa cgtgcctctt 1450
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ctgtaggtcc tgaggccagg gatttttaaat taaatggggg gatgggtggc 2200
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gatacagaaa aaagagcctg gatttacaga aacatataga tctggtttga 2300
attccagatc gagtttacag ttgtgaaatc ttgaaggtat tacttaactt 2350
cactacagat tgtctagaag acctttctag gagttatctg attctagaag 2400
gggtctatact tgtccttgct ttttaagctat ttgacaactc tacgtgttgt 2450
agaaaactga taataatata aatgattggt gtccatggaa aggcaaataa 2500
attttctaca gtgaaaaaaaa aaaaaaaaa 2528

<210> 347
<211> 600
<212> PRT
<213> Homo sapiens

<400> 347
Met Arg Ser Cys Leu Trp Arg Cys Arg His Leu Ser Gln Gly Val
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Gln Trp Ser Leu Leu Leu Ala Val Leu Val Phe Phe Leu Phe Ala
20 25 30
Leu Pro Ser Phe Ile Lys Glu Pro Gln Thr Lys Pro Ser Arg His
35 40 45
Gln Arg Thr Glu Asn Ile Lys Glu Arg Ser Leu Gln Ser Leu Ala
50 55 60
Lys Pro Lys Ser Gln Ala Pro Thr Arg Ala Arg Arg Thr Thr Ile
65 70 75
Tyr Ala Glu Pro Ala Pro Glu Asn Asn Ala Leu Asn Thr Gln Thr
80 85 90
Gln Pro Lys Ala His Thr Thr Gly Asp Arg Gly Lys Glu Ala Asn
95 100 105

Gln	Ala	Pro	Pro	Glu	Glu	Gln	Asp	Lys	Val	Pro	His	Thr	Ala	Gln		110	115	120
Arg	Ala	Ala	Trp	Lys	Ser	Pro	Glu	Lys	Glu	Lys	Thr	Met	Val	Asn		125	130	135
Thr	Leu	Ser	Pro	Arg	Gly	Gln	Asp	Ala	Gly	Met	Ala	Ser	Gly	Arg		140	145	150
Thr	Glu	Ala	Gln	Ser	Trp	Lys	Ser	Gln	Asp	Thr	Lys	Thr	Thr	Gln		155	160	165
Gly	Asn	Gly	Gly	Gln	Thr	Arg	Lys	Leu	Thr	Ala	Ser	Arg	Thr	Val		170	175	180
Ser	Glu	Lys	His	Gln	Gly	Lys	Ala	Ala	Thr	Thr	Ala	Lys	Thr	Leu		185	190	195
Ile	Pro	Lys	Ser	Gln	His	Arg	Met	Leu	Ala	Pro	Thr	Gly	Ala	Val		200	205	210
Ser	Thr	Arg	Thr	Arg	Gln	Lys	Gly	Val	Thr	Thr	Ala	Val	Ile	Pro		215	220	225
Pro	Lys	Glu	Lys	Lys	Pro	Gln	Ala	Thr	Pro	Pro	Pro	Ala	Pro	Phe		230	235	240
Gln	Ser	Pro	Thr	Thr	Gln	Arg	Asn	Gln	Arg	Leu	Lys	Ala	Ala	Asn		245	250	255
Phe	Lys	Ser	Glu	Pro	Arg	Trp	Asp	Phe	Glu	Glu	Lys	Tyr	Ser	Phe		260	265	270
Glu	Ile	Gly	Gly	Leu	Gln	Thr	Thr	Cys	Pro	Asp	Ser	Val	Lys	Ile		275	280	285
Lys	Ala	Ser	Lys	Ser	Leu	Trp	Leu	Gln	Lys	Leu	Phe	Leu	Pro	Asn		290	295	300
Leu	Thr	Leu	Phe	Leu	Asp	Ser	Arg	His	Phe	Asn	Gln	Ser	Glu	Trp		305	310	315
Asp	Arg	Leu	Glu	His	Phe	Ala	Pro	Pro	Phe	Gly	Phe	Met	Glu	Leu		320	325	330
Asn	Tyr	Ser	Leu	Val	Gln	Lys	Val	Val	Thr	Arg	Phe	Pro	Pro	Val		335	340	345
Pro	Gln	Gln	Gln	Leu	Leu	Leu	Ala	Ser	Leu	Pro	Ala	Gly	Ser	Leu		350	355	360
Arg	Cys	Ile	Thr	Cys	Ala	Val	Val	Gly	Asn	Gly	Gly	Ile	Leu	Asn		365	370	375
Asn	Ser	His	Met	Gly	Gln	Glu	Ile	Asp	Ser	His	Asp	Tyr	Val	Phe		380	385	390
Arg	Leu	Ser	Gly	Ala	Leu	Ile	Lys	Gly	Tyr	Glu	Gln	Asp	Val	Gly				

395	400	405
Thr Arg Thr Ser Phe Tyr Gly Phe Thr	Ala Phe Ser Leu Thr Gln	
410	415	420
Ser Leu Leu Ile Leu Gly Asn Arg Gly	Phe Lys Asn Val Pro Leu	
425	430	435
Gly Lys Asp Val Arg Tyr Leu His Phe	Leu Glu Gly Thr Arg Asp	
440	445	450
Tyr Glu Trp Leu Glu Ala Leu Leu Met	Asn Gln Thr Val Met Ser	
455	460	465
Lys Asn Leu Phe Trp Phe Arg His Arg	Pro Gln Glu Ala Phe Arg	
470	475	480
Glu Ala Leu His Met Asp Arg Tyr Leu	Leu Leu His Pro Asp Phe	
485	490	495
Leu Arg Tyr Met Lys Asn Arg Phe Leu	Arg Ser Lys Thr Leu Asp	
500	505	510
Gly Ala His Trp Arg Ile Tyr Arg Pro	Thr Thr Gly Ala Leu Leu	
515	520	525
Leu Leu Thr Ala Leu Gln Leu Cys Asp	Gln Val Ser Ala Tyr Gly	
530	535	540
Phe Ile Thr Glu Gly His Glu Arg Phe	Ser Asp His Tyr Tyr Asp	
545	550	555
Thr Ser Trp Lys Arg Leu Ile Phe Tyr	Ile Asn His Asp Phe Lys	
560	565	570
Leu Glu Arg Glu Val Trp Lys Arg Leu	His Asp Glu Gly Ile Ile	
575	580	585
Arg Leu Tyr Gln Arg Pro Gly Pro Gly	Thr Ala Lys Ala Lys Asn	
590	595	600

<210> 348
 <211> 496
 <212> DNA
 <213> Homo sapiens

<400> 348
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 gaaggacaag tttctaaaac accttacagg ccctctttat tttagtccaa 150
 agtgcagcaa acacttccat agactttatc acaacaccag agactgcacc 200
 attcctgcat actataaaaag atgcgccagg cttcttacct ggctggctgt 250
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accaggagcc atgagaagtg ccttggaac caacagggaa acagaactat 350
 ctttatacac atcccccat ggacaagaga tttatTTTTg cagacagact 400
 cttccataag tcctttgagt tttgtatggt gttgacagtt tgcagatata 450
 tattcgataa atcagtgtac ttgacagtgt tatctgtcac ttattt 496

<210> 349
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 349
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 20 25 30
 Leu Arg Met Lys Asp Lys Phe Leu Lys His Leu Thr Gly Pro Leu
 35 40 45
 Tyr Phe Ser Pro Lys Cys Ser Lys His Phe His Arg Leu Tyr His
 50 55 60
 Asn Thr Arg Asp Cys Thr Ile Pro Ala Tyr Tyr Lys Arg Cys Ala
 65 70 75
 Arg Leu Leu Thr Arg Leu Ala Val Ser Pro Val Cys Met Glu Asp
 80 85 90
 Lys

<210> 350
 <211> 1141
 <212> DNA
 <213> Homo sapiens

<400> 350
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 caccgagagg cagcagaagc actgcctggc cttcagcccc aagaccatag 350
 caggcatcgc ctcagctgtg atcctctttg ttgctgtggt tgccaccacc 400
 atctgctgct tcctctgttc ctgttgctac ctgtaccgcc ggcgccagca 450

Leu	Gln	Ser	Pro	Phe	Glu	Gly	Gln	Glu	Ile	Pro	Met	Thr	Gly	Ile
				125					130					135
Pro	Val	Gln	Pro	Val	Tyr	Pro	Tyr	Pro	Gln	Asp	Pro	Lys	Ala	Gly
				140					145					150
Pro	Ala	Pro	Pro	Gln	Pro	Gly	Phe	Met	Tyr	Pro	Pro	Ser	Gly	Pro
				155					160					165
Ala	Pro	Gln	Tyr	Pro	Leu	Tyr	Pro	Ala	Gly	Pro	Pro	Val	Tyr	Asn
				170					175					180
Pro	Ala	Ala	Pro	Pro	Pro	Tyr	Met	Pro	Pro	Gln	Pro	Ser	Tyr	Pro
				185					190					195

Gly Ala

<210> 352
 <211> 3226
 <212> DNA
 <213> Homo sapiens

<400> 352
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 tctcttaact gtgtccactc cttcatggtg tcagagcact gaagcatctc 200
 caaaacgtag tgatgggaca ccatttcctt ggaataaaat acgacttcct 250
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 accctcagga agggagctgg agagaggcta tcggaagaac ccctgcaggt 450
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 tcggagactt tccacggatt ttacaaaagc acctacagaa ccaaggaagg 600
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 aaaattagaa gagagccaag gcacctagcc atctccaata tgccattggt 750
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 ctgtgaagat gagcacctat ctggtggcct tcatcatttc agattttgag 850

tctgtcagca agataaccaa gagtggagtc aaggtttctg tttatgctgt 900
gccagacaag ataaatcaag cagattatgc actggatgct gcggtgactc 950
ttctagaatt ttatgaggat tatttcagca taccgtatcc cctacccaaa 1000
caagatcttg ctgctattcc cgactttcag tctggtgcta tggaaaactg 1050
gggactgaca acatatagag aatctgctct gttgtttgat gcagaaaagt 1100
cttctgcac c aagtaagctt ggcatcacag tgactgtggc ccatgaactg 1150
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gacgcaatgg aggtagatgc tttaaattcc tcacaccctg tgtctacacc 1350
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tcatectcac attggcatca ggaaggggtg gatgtgaaaa ccatgatgaa 1650
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ctgctaaggg acctcattga taagcagaca tggacagacg agggctcagt 2250
ctcagagcaa atgctgcgga gtgaactact actcctcgcc tgtgtgcaca 2300

Phe	Trp	Gly	Thr	Thr	Lys	Val	Glu	Ile	Thr	Ala	Ser	Gln	Pro	Thr		80	85	90
Ser	Thr	Ile	Ile	Leu	His	Ser	His	His	Leu	Gln	Ile	Ser	Arg	Ala		95	100	105
Thr	Leu	Arg	Lys	Gly	Ala	Gly	Glu	Arg	Leu	Ser	Glu	Glu	Pro	Leu		110	115	120
Gln	Val	Leu	Glu	His	Pro	Pro	Gln	Glu	Gln	Ile	Ala	Leu	Leu	Ala		125	130	135
Pro	Glu	Pro	Leu	Leu	Val	Gly	Leu	Pro	Tyr	Thr	Val	Val	Ile	His		140	145	150
Tyr	Ala	Gly	Asn	Leu	Ser	Glu	Thr	Phe	His	Gly	Phe	Tyr	Lys	Ser		155	160	165
Thr	Tyr	Arg	Thr	Lys	Glu	Gly	Glu	Leu	Arg	Ile	Leu	Ala	Ser	Thr		170	175	180
Gln	Phe	Glu	Pro	Thr	Ala	Ala	Arg	Met	Ala	Phe	Pro	Cys	Phe	Asp		185	190	195
Glu	Pro	Ala	Phe	Lys	Ala	Ser	Phe	Ser	Ile	Lys	Ile	Arg	Arg	Glu		200	205	210
Pro	Arg	His	Leu	Ala	Ile	Ser	Asn	Met	Pro	Leu	Val	Lys	Ser	Val		215	220	225
Thr	Val	Ala	Glu	Gly	Leu	Ile	Glu	Asp	His	Phe	Asp	Val	Thr	Val		230	235	240
Lys	Met	Ser	Thr	Tyr	Leu	Val	Ala	Phe	Ile	Ile	Ser	Asp	Phe	Glu		245	250	255
Ser	Val	Ser	Lys	Ile	Thr	Lys	Ser	Gly	Val	Lys	Val	Ser	Val	Tyr		260	265	270
Ala	Val	Pro	Asp	Lys	Ile	Asn	Gln	Ala	Asp	Tyr	Ala	Leu	Asp	Ala		275	280	285
Ala	Val	Thr	Leu	Leu	Glu	Phe	Tyr	Glu	Asp	Tyr	Phe	Ser	Ile	Pro		290	295	300
Tyr	Pro	Leu	Pro	Lys	Gln	Asp	Leu	Ala	Ala	Ile	Pro	Asp	Phe	Gln		305	310	315
Ser	Gly	Ala	Met	Glu	Asn	Trp	Gly	Leu	Thr	Thr	Tyr	Arg	Glu	Ser		320	325	330
Ala	Leu	Leu	Phe	Asp	Ala	Glu	Lys	Ser	Ser	Ala	Ser	Ser	Lys	Leu		335	340	345
Gly	Ile	Thr	Val	Thr	Val	Ala	His	Glu	Leu	Ala	His	Gln	Trp	Phe		350	355	360
Gly	Asn	Leu	Val	Thr	Met	Glu	Trp	Trp	Asn	Asp	Leu	Trp	Leu	Asn				

	365		370		375
Glu Gly Phe Ala Lys Phe Met Glu Phe Val Ser Val Ser Val Thr	380		385		390
His Pro Glu Leu Lys Val Gly Asp Tyr Phe Phe Gly Lys Cys Phe	395		400		405
Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser His Pro Val Ser	410		415		420
Thr Pro Val Glu Asn Pro Ala Gln Ile Arg Glu Met Phe Asp Asp	425		430		435
Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu Arg Glu	440		445		450
Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile Val Gln Tyr Leu	455		460		465
Gln Lys His Ser Tyr Lys Asn Thr Lys Asn Glu Asp Leu Trp Asp	470		475		480
Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp	485		490		495
Gly Phe Cys Ser Arg Ser Gln His Ser Ser Ser Ser Ser His Trp	500		505		510
His Gln Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr	515		520		525
Leu Gln Arg Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg	530		535		540
Asn Val His Met Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly	545		550		555
Ala Pro Asp Thr Gly Tyr Leu Trp His Val Pro Leu Thr Phe Ile	560		565		570
Thr Ser Lys Ser Asn Met Val His Arg Phe Leu Leu Lys Thr Lys	575		580		585
Thr Asp Val Leu Ile Leu Pro Glu Glu Val Glu Trp Ile Lys Phe	590		595		600
Asn Val Gly Met Asn Gly Tyr Tyr Ile Val His Tyr Glu Asp Asp	605		610		615
Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala	620		625		630
Val Ser Ser Asn Asp Arg Ala Ser Leu Ile Asn Asn Ala Phe Gln	635		640		645
Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys Ala Leu Asp Leu	650		655		660

Ser	Leu	Tyr	Leu	Lys	His	Glu	Thr	Glu	Ile	Met	Pro	Val	Phe	Gln	
				665					670					675	
Gly	Leu	Asn	Glu	Leu	Ile	Pro	Met	Tyr	Lys	Leu	Met	Glu	Lys	Arg	
				680					685					690	
Asp	Met	Asn	Glu	Val	Glu	Thr	Gln	Phe	Lys	Ala	Phe	Leu	Ile	Arg	
				695					700					705	
Leu	Leu	Arg	Asp	Leu	Ile	Asp	Lys	Gln	Thr	Trp	Thr	Asp	Glu	Gly	
				710					715					720	
Ser	Val	Ser	Glu	Gln	Met	Leu	Arg	Ser	Glu	Leu	Leu	Leu	Leu	Ala	
				725					730					735	
Cys	Val	His	Asn	Tyr	Gln	Pro	Cys	Val	Gln	Arg	Ala	Glu	Gly	Tyr	
				740					745					750	
Phe	Arg	Lys	Trp	Lys	Glu	Ser	Asn	Gly	Asn	Leu	Ser	Leu	Pro	Val	
				755					760					765	
Asp	Val	Thr	Leu	Ala	Val	Phe	Ala	Val	Gly	Ala	Gln	Ser	Thr	Glu	
				770					775					780	
Gly	Trp	Asp	Phe	Leu	Tyr	Ser	Lys	Tyr	Gln	Phe	Ser	Leu	Ser	Ser	
				785					790					795	
Thr	Glu	Lys	Ser	Gln	Ile	Glu	Phe	Ala	Leu	Cys	Arg	Thr	Gln	Asn	
				800					805					810	
Lys	Glu	Lys	Leu	Gln	Trp	Leu	Leu	Asp	Glu	Ser	Phe	Lys	Gly	Asp	
				815					820					825	
Lys	Ile	Lys	Thr	Gln	Glu	Phe	Pro	Gln	Ile	Leu	Thr	Leu	Ile	Gly	
				830					835					840	
Arg	Asn	Pro	Val	Gly	Tyr	Pro	Leu	Ala	Trp	Gln	Phe	Leu	Arg	Lys	
				845					850					855	
Asn	Trp	Asn	Lys	Leu	Val	Gln	Lys	Phe	Glu	Leu	Gly	Ser	Ser	Ser	
				860					865					870	
Ile	Ala	His	Met	Val	Met	Gly	Thr	Thr	Asn	Gln	Phe	Ser	Thr	Arg	
				875					880					885	
Thr	Arg	Leu	Glu	Glu	Val	Lys	Gly	Phe	Phe	Ser	Ser	Leu	Lys	Glu	
				890					895					900	
Asn	Gly	Ser	Gln	Leu	Arg	Cys	Val	Gln	Gln	Thr	Ile	Glu	Thr	Ile	
				905					910					915	
Glu	Glu	Asn	Ile	Gly	Trp	Met	Asp	Lys	Asn	Phe	Asp	Lys	Ile	Arg	
				920					925					930	
Val	Trp	Leu	Gln	Ser	Glu	Lys	Leu	Glu	Arg	Met					
				935					940						

<210> 354

<211> 1587
 <212> DNA
 <213> Homo sapiens

<400> 354
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 gttcagcatg tgtggaaggt gtccgaccta ccccggaat ggaccctaa 150
 gaacaccagc tgcgacagcg gcttggggtg ccaggacacg ttgatgctca 200
 ttgagagcgg accccaagtg agcctggtgc tctccaaggg ctgcacggag 250
 gccaggacc aggagccccg cgtcactgag caccggatgg gccccgcct 300
 ctccctgata tcctacacct tcgtgtgccg ccaggaggac ttctgcaaca 350
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 ggatccttga ggtgcccagt ctgcttgtct atggaaggct gtctggaggg 450
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gctgcatgta tctgataata cagaccctgt cctttca 1587

<210> 355
<211> 437
<212> PRT
<213> Homo sapiens

<400> 355
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His Val Trp Lys Val Ser Asp Leu Pro Arg Gln Trp Thr Pro Lys
35 40 45
Asn Thr Ser Cys Asp Ser Gly Leu Gly Cys Gln Asp Thr Leu Met
50 55 60
Leu Ile Glu Ser Gly Pro Gln Val Ser Leu Val Leu Ser Lys Gly
65 70 75
Cys Thr Glu Ala Lys Asp Gln Glu Pro Arg Val Thr Glu His Arg
80 85 90
Met Gly Pro Gly Leu Ser Leu Ile Ser Tyr Thr Phe Val Cys Arg
95 100 105
Gln Glu Asp Phe Cys Asn Asn Leu Val Asn Ser Leu Pro Leu Trp
110 115 120
Ala Pro Gln Pro Pro Ala Asp Pro Gly Ser Leu Arg Cys Pro Val
125 130 135
Cys Leu Ser Met Glu Gly Cys Leu Glu Gly Thr Thr Glu Glu Ile
140 145 150
Cys Pro Lys Gly Thr Thr His Cys Tyr Asp Gly Leu Leu Arg Leu
155 160 165
Arg Gly Gly Gly Ile Phe Ser Asn Leu Arg Val Gln Gly Cys Met
170 175 180
Pro Gln Pro Gly Cys Asn Leu Leu Asn Gly Thr Gln Glu Ile Gly
185 190 195
Pro Val Gly Met Thr Glu Asn Cys Asn Arg Lys Asp Phe Leu Thr
200 205 210

Cys	His	Arg	Gly	Thr	Thr	Ile	Met	Thr	His	Gly	Asn	Leu	Ala	Gln	
				215					220					225	
Glu	Pro	Thr	Asp	Trp	Thr	Thr	Ser	Asn	Thr	Glu	Met	Cys	Glu	Val	
				230					235					240	
Gly	Gln	Val	Cys	Gln	Glu	Thr	Leu	Leu	Leu	Ile	Asp	Val	Gly	Leu	
				245					250					255	
Thr	Ser	Thr	Leu	Val	Gly	Thr	Lys	Gly	Cys	Ser	Thr	Val	Gly	Ala	
				260					265					270	
Gln	Asn	Ser	Gln	Lys	Thr	Thr	Ile	His	Ser	Ala	Pro	Pro	Gly	Val	
				275					280					285	
Leu	Val	Ala	Ser	Tyr	Thr	His	Phe	Cys	Ser	Ser	Asp	Leu	Cys	Asn	
				290					295					300	
Ser	Ala	Ser	Ser	Ser	Ser	Val	Leu	Leu	Asn	Ser	Leu	Pro	Pro	Gln	
				305					310					315	
Ala	Ala	Pro	Val	Pro	Gly	Asp	Arg	Gln	Cys	Pro	Thr	Cys	Val	Gln	
				320					325					330	
Pro	Leu	Gly	Thr	Cys	Ser	Ser	Gly	Ser	Pro	Arg	Met	Thr	Cys	Pro	
				335					340					345	
Arg	Gly	Ala	Thr	His	Cys	Tyr	Asp	Gly	Tyr	Ile	His	Leu	Ser	Gly	
				350					355					360	
Gly	Gly	Leu	Ser	Thr	Lys	Met	Ser	Ile	Gln	Gly	Cys	Val	Ala	Gln	
				365					370					375	
Pro	Ser	Ser	Phe	Leu	Leu	Asn	His	Thr	Arg	Gln	Ile	Gly	Ile	Phe	
				380					385					390	
Ser	Ala	Arg	Glu	Lys	Arg	Asp	Val	Gln	Pro	Pro	Ala	Ser	Gln	His	
				395					400					405	
Glu	Gly	Gly	Gly	Ala	Glu	Gly	Leu	Glu	Ser	Leu	Thr	Trp	Gly	Val	
				410					415					420	
Gly	Leu	Ala	Leu	Ala	Pro	Ala	Leu	Trp	Trp	Gly	Val	Val	Cys	Pro	
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Ser Cys

<210> 356

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 356

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 ggcatgacg cctgctctgt gcagatcctc gtccctggcc tcaaagggga 200
 tgcgggagag aaggagagaca aaggcgcccc cggacggcct ggaagagtcg 250
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<210> 357
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 357
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 Phe Leu Ser Leu Leu Pro Ser Gly His Pro Gln Pro Ala Gly Asp
 20 25 30

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				35					40					45	
Ala	Gly	Glu	Lys	Gly	Asp	Lys	Gly	Ala	Pro	Gly	Arg	Pro	Gly	Arg	
				50					55					60	
Val	Gly	Pro	Thr	Gly	Glu	Lys	Gly	Asp	Met	Gly	Asp	Lys	Gly	Gln	
				65					70					75	
Lys	Gly	Ser	Val	Gly	Arg	His	Gly	Lys	Ile	Gly	Pro	Ile	Gly	Ser	
				80					85					90	
Lys	Gly	Glu	Lys	Gly	Asp	Ser	Gly	Asp	Ile	Gly	Pro	Pro	Gly	Pro	
				95					100					105	
Asn	Gly	Glu	Pro	Gly	Leu	Pro	Cys	Glu	Cys	Ser	Gln	Leu	Arg	Lys	
				110					115					120	
Ala	Ile	Gly	Glu	Met	Asp	Asn	Gln	Val	Ser	Gln	Leu	Thr	Ser	Glu	
				125					130					135	
Leu	Lys	Phe	Ile	Lys	Asn	Ala	Val	Ala	Gly	Val	Arg	Glu	Thr	Glu	
				140					145					150	
Ser	Lys	Ile	Tyr	Leu	Leu	Val	Lys	Glu	Glu	Lys	Arg	Tyr	Ala	Asp	
				155					160					165	
Ala	Gln	Leu	Ser	Cys	Gln	Gly	Arg	Gly	Gly	Thr	Leu	Ser	Met	Pro	
				170					175					180	
Lys	Asp	Glu	Ala	Ala	Asn	Gly	Leu	Met	Ala	Ala	Tyr	Leu	Ala	Gln	
				185					190					195	
Ala	Gly	Leu	Ala	Arg	Val	Phe	Ile	Gly	Ile	Asn	Asp	Leu	Glu	Lys	
				200					205					210	
Glu	Gly	Ala	Phe	Val	Tyr	Ser	Asp	His	Ser	Pro	Met	Arg	Thr	Phe	
				215					220					225	
Asn	Lys	Trp	Arg	Ser	Gly	Glu	Pro	Asn	Asn	Ala	Tyr	Asp	Glu	Glu	
				230					235					240	
Asp	Cys	Val	Glu	Met	Val	Ala	Ser	Gly	Gly	Trp	Asn	Asp	Val	Ala	
				245					250					255	
Cys	His	Thr	Thr	Met	Tyr	Phe	Met	Cys	Glu	Phe	Asp	Lys	Glu	Asn	
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Met

<210> 358
 <211> 972
 <212> DNA
 <213> Homo sapiens

<400> 358
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atcccaatca gcttggatcc acaggaaagt cttccctggg aacagaggag 550
cagagacctt tataagactc tcctacggat gtgaatcaag agaacgtccc 600
cagctttggc atcctcaagt atcccccgag agcagaatag gtactccact 650
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actgcatagt gaatatcccc aacccaatg ggcattgact gtagaatacc 850
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aaaaaaaaaa aaaaaaaaaa aa 972

<210> 359

<211> 135

<212> PRT

<213> Homo sapiens

<400> 359

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Ala	Gln	Ser	Phe	Gly	Ala	Val	Cys	Lys	Glu	Pro	Gln	Glu	Glu	Val
				20					25					30
Val	Pro	Gly	Gly	Gly	Arg	Ser	Lys	Arg	Asp	Pro	Asp	Leu	Tyr	Gln
				35					40					45
Leu	Leu	Gln	Arg	Leu	Phe	Lys	Ser	His	Ser	Ser	Leu	Glu	Gly	Leu
				50					55					60
Leu	Lys	Ala	Leu	Ser	Gln	Ala	Ser	Thr	Asp	Pro	Lys	Glu	Ser	Thr
				65					70					75

Ser	Pro	Glu	Lys	Arg	Asp	Met	His	Asp	Phe	Phe	Val	Gly	Leu	Met
				80					85					90
Gly	Lys	Arg	Ser	Val	Gln	Pro	Glu	Gly	Lys	Thr	Gly	Pro	Phe	Leu
				95					100					105
Pro	Ser	Val	Arg	Val	Pro	Arg	Pro	Leu	His	Pro	Asn	Gln	Leu	Gly
				110					115					120
Ser	Thr	Gly	Lys	Ser	Ser	Leu	Gly	Thr	Glu	Glu	Gln	Arg	Pro	Leu
				125					130					135

<210> 360

<211> 1738

<212> DNA

<213> Homo sapiens

<400> 360

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	110		115		120
Ser Ser Gly Arg Gly Gly Ser Arg Leu Cys Ser Val Leu Phe Val					
	125		130		135
Cys Phe Glu Thr Gly Ser His Ser Ala Thr Asp Ala Gly Val Gln					
	140		145		150
Trp His Asn Arg His Ala Leu Lys Pro					
	155				

<210> 362
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 362
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 gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150
 gagtcttttc tgacaaattc ctctatgag tccagcttcc tggaattgct 200
 tgaaaagctc tgctctctcc tccatctccc ttcagggacc agcgtcaccc 250
 tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300
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 ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400
 ataaataaaa ttcggtatgc tg 422

<210> 363
 <211> 78
 <212> PRT
 <213> Homo sapiens

<400> 363
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 20 25 30
 Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu
 35 40 45
 Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly
 50 55 60
 Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val
 65 70 75
 Cys Asn Thr

<210> 364
 <211> 826
 <212> DNA
 <213> Homo sapiens

<400> 364
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 ttctgatgtg ggggttcctcc actgtgttct gtgtgctatt aatatttacc 200
 attgcagaag cttcattcag tgttgaaaat gaatgcttag tggatctgtg 250
 cctcttacgc atatgttaca aattatctgg agttcctaata caatgcagag 300
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 accagaataa aagttcatat ctaccc 826

<210> 365
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 365
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 Phe Ser Val Glu Asn Glu Cys Leu Val Asp Leu Cys Leu Leu Arg
 35 40 45
 Ile Cys Tyr Lys Leu Ser Gly Val Pro Asn Gln Cys Arg Val Pro
 50 55 60

Leu Pro Ser Asp Cys Ser Lys
65

<210> 366

<211> 2475

<212> DNA

<213> Homo sapiens

<400> 366

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<210> 367
<211> 402
<212> PRT
<213> Homo sapiens

<400> 367
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Tyr Ser Thr Gly Gly Gln Gly Pro His	Arg Ile Thr Cys Ile Tyr	
335	340	345
Asp Pro Leu Gly Thr Ile Ser Glu Glu	Asp Leu Pro Asn Leu Phe	
350	355	360
Phe Pro Lys Arg Pro Arg Ser His Ser	Met Ile His Tyr Asn Pro	
365	370	375
Arg Asp Lys Gln Leu Tyr Ala Trp Asn	Glu Gly Asn Gln Ile Ile	
380	385	390
Tyr Lys Leu Gln Thr Lys Arg Lys Leu	Pro Leu Lys	
395	400	

<210> 368
 <211> 2281
 <212> DNA
 <213> Homo sapiens

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<210> 369

<211> 447

<212> PRT

<213> Homo sapiens

<400> 369

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Trp	Leu	Arg	Ala	Gly	Glu	Glu	Arg	Ser	Gly	Arg	Pro	Ala	Cys	Gln	
				35					40					45	
Lys	Ala	Asn	Gly	Phe	Pro	Pro	Asp	Lys	Ser	Ser	Gly	Ser	Lys	Lys	
				50					55					60	
Gln	Lys	Gln	Tyr	Gln	Arg	Ile	Arg	Lys	Glu	Lys	Pro	Gln	Gln	His	
				65					70					75	
Asn	Phe	Thr	His	Arg	Leu	Leu	Ala	Ala	Ala	Leu	Lys	Ser	His	Ser	
				80					85					90	
Gly	Asn	Ile	Ser	Cys	Met	Asp	Phe	Ser	Ser	Asn	Gly	Lys	Tyr	Leu	
				95					100					105	
Ala	Thr	Cys	Ala	Asp	Asp	Arg	Thr	Ile	Arg	Ile	Trp	Ser	Thr	Lys	
				110					115					120	
Asp	Phe	Leu	Gln	Arg	Glu	His	Arg	Ser	Met	Arg	Ala	Asn	Val	Glu	
				125					130					135	
Leu	Asp	His	Ala	Thr	Leu	Val	Arg	Phe	Ser	Pro	Asp	Cys	Arg	Ala	
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Phe	Ile	Val	Trp	Leu	Ala	Asn	Gly	Asp	Thr	Leu	Arg	Val	Phe	Lys	
				155					160					165	
Met	Thr	Lys	Arg	Glu	Asp	Gly	Gly	Tyr	Thr	Phe	Thr	Ala	Thr	Pro	
				170					175					180	
Glu	Asp	Phe	Pro	Lys	Lys	His	Lys	Ala	Pro	Val	Ile	Asp	Ile	Gly	
				185					190					195	
Ile	Ala	Asn	Thr	Gly	Lys	Phe	Ile	Met	Thr	Ala	Ser	Ser	Asp	Thr	
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Thr	Val	Leu	Ile	Trp	Ser	Leu	Lys	Gly	Gln	Val	Leu	Ser	Thr	Ile	
				215					220					225	
Asn	Thr	Asn	Gln	Met	Asn	Asn	Thr	His	Ala	Ala	Val	Ser	Pro	Cys	
				230					235					240	
Gly	Arg	Phe	Val	Ala	Ser	Cys	Gly	Phe	Thr	Pro	Asp	Val	Lys	Val	
				245					250					255	

Trp	Glu	Val	Cys	Phe	Gly	Lys	Lys	Gly	Glu	Phe	Gln	Glu	Val	Val	260	265	270
Arg	Ala	Phe	Glu	Leu	Lys	Gly	His	Ser	Ala	Ala	Val	His	Ser	Phe	275	280	285
Ala	Phe	Ser	Asn	Asp	Ser	Arg	Arg	Met	Ala	Ser	Val	Ser	Lys	Asp	290	295	300
Gly	Thr	Trp	Lys	Leu	Trp	Asp	Thr	Asp	Val	Glu	Tyr	Lys	Lys	Lys	305	310	315
Gln	Asp	Pro	Tyr	Leu	Leu	Lys	Thr	Gly	Arg	Phe	Glu	Glu	Ala	Ala	320	325	330
Gly	Ala	Ala	Pro	Cys	Arg	Leu	Ala	Leu	Ser	Pro	Asn	Ala	Gln	Val	335	340	345
Leu	Ala	Leu	Ala	Ser	Gly	Ser	Ser	Ile	His	Leu	Tyr	Asn	Thr	Arg	350	355	360
Arg	Gly	Glu	Lys	Glu	Glu	Cys	Phe	Glu	Arg	Val	His	Gly	Glu	Cys	365	370	375
Ile	Ala	Asn	Leu	Ser	Phe	Asp	Ile	Thr	Gly	Arg	Phe	Leu	Ala	Ser	380	385	390
Cys	Gly	Asp	Arg	Ala	Val	Arg	Leu	Phe	His	Asn	Thr	Pro	Gly	His	395	400	405
Arg	Ala	Met	Val	Glu	Glu	Met	Gln	Gly	His	Leu	Lys	Arg	Ala	Ser	410	415	420
Asn	Glu	Ser	Thr	Arg	Gln	Arg	Leu	Gln	Gln	Gln	Leu	Thr	Gln	Ala	425	430	435
Gln	Glu	Thr	Leu	Lys	Ser	Leu	Gly	Ala	Leu	Lys	Lys				440	445	

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 <211> 1415
 <212> DNA
 <213> Homo sapiens

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 gtgatcacag gggcctgtga gcgggatgtc cagtgtgggg caggcacctg 200
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<210> 371
 <211> 105
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Gln Cys Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg
 35 40 45

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<210> 373

<211> 229

<212> PRT

<213> Homo sapiens

<400> 373

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Ser	Ile	Gly	Ala	Gly	Ala	Leu	Gly	Ala	Ala	Ala	Leu	Ala	Leu	Leu
				20					25					30
Leu	Ala	Asn	Thr	Asp	Val	Phe	Leu	Ser	Lys	Pro	Gln	Lys	Ala	Ala
				35					40					45
Leu	Glu	Tyr	Leu	Glu	Asp	Ile	Asp	Leu	Lys	Thr	Leu	Glu	Lys	Glu
				50					55					60
Pro	Arg	Thr	Phe	Lys	Ala	Lys	Glu	Leu	Trp	Glu	Lys	Asn	Gly	Ala
				65					70					75
Val	Ile	Met	Ala	Val	Arg	Arg	Pro	Gly	Cys	Phe	Leu	Cys	Arg	Glu
				80					85					90
Glu	Ala	Ala	Asp	Leu	Ser	Ser	Leu	Lys	Ser	Met	Leu	Asp	Gln	Leu
				95					100					105
Gly	Val	Pro	Leu	Tyr	Ala	Val	Val	Lys	Glu	His	Ile	Arg	Thr	Glu
				110					115					120
Val	Lys	Asp	Phe	Gln	Pro	Tyr	Phe	Lys	Gly	Glu	Ile	Phe	Leu	Asp
				125					130					135
Glu	Lys	Lys	Lys	Phe	Tyr	Gly	Pro	Gln	Arg	Arg	Lys	Met	Met	Phe
				140					145					150
Met	Gly	Phe	Ile	Arg	Leu	Gly	Val	Trp	Tyr	Asn	Phe	Phe	Arg	Ala
				155					160					165
Trp	Asn	Gly	Gly	Phe	Ser	Gly	Asn	Leu	Glu	Gly	Glu	Gly	Phe	Ile
				170					175					180
Leu	Gly	Gly	Val	Phe	Val	Val	Gly	Ser	Gly	Lys	Gln	Gly	Ile	Leu
				185					190					195
Leu	Glu	His	Arg	Glu	Lys	Glu	Phe	Gly	Asp	Lys	Val	Asn	Leu	Leu

Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile
50 55 60

Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly
65 70 75

Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu
80 85 90

Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala
95 100 105

Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys
110 115 120

Leu Pro Ile

<210> 376
<211> 713
<212> DNA
<213> Homo sapiens

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<210> 377
<211> 90
<212> PRT
<213> Homo sapiens

<400> 377

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Ile	Trp	Arg	Ser	Asn	Ser	Gly	Ser	Asn	Thr	Leu	Glu	Asn	Gly	Tyr
				20					25					30
Phe	Leu	Ser	Arg	Asn	Lys	Glu	Asn	His	Ser	Gln	Pro	Thr	Gln	Ser
				35					40					45
Ser	Leu	Glu	Asp	Ser	Val	Thr	Pro	Thr	Lys	Ala	Val	Lys	Thr	Thr
				50					55					60
Gly	Lys	Gly	Ile	Val	Lys	Gly	Arg	Asn	Leu	Asp	Ser	Arg	Gly	Leu
				65					70					75
Ile	Leu	Gly	Ala	Glu	Ala	Trp	Gly	Arg	Gly	Val	Lys	Lys	Asn	Thr
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<210> 378

<211> 3265

<212> DNA

<213> Homo sapiens

<400> 378

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<210> 379
<211> 919
<212> PRT
<213> Homo sapiens

<400> 379
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Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp
35 40 45
Glu Lys Ile Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser
50 55 60

Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn	
				65					70					75	
Val	Ser	Ile	Leu	Ile	Pro	Glu	Asn	Trp	Lys	Glu	Asn	Pro	Gln	Tyr	
				80					85					90	
Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val	
				95					100					105	
Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln	
				110					115					120	
Phe	Thr	Glu	Cys	Gly	Glu	Lys	Gly	Glu	Tyr	Ile	His	Phe	Thr	Pro	
				125					130					135	
Asp	Leu	Leu	Leu	Gly	Lys	Lys	Gln	Asn	Glu	Tyr	Gly	Pro	Pro	Gly	
				140					145					150	
Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe	
				155					160					165	
Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys	
				170					175					180	
Lys	Ile	Glu	Ala	Thr	Arg	Cys	Ser	Ala	Gly	Ile	Ser	Gly	Arg	Asn	
				185					190					195	
Arg	Val	Tyr	Lys	Cys	Gln	Gly	Gly	Ser	Cys	Leu	Ser	Arg	Ala	Cys	
				200					205					210	
Arg	Ile	Asp	Ser	Thr	Thr	Lys	Leu	Tyr	Gly	Lys	Asp	Cys	Gln	Phe	
				215					220					225	
Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met	
				230					235					240	
Gln	Ser	Ile	Asp	Ser	Val	Val	Glu	Phe	Cys	Asn	Glu	Lys	Thr	His	
				245					250					255	
Asn	Gln	Glu	Ala	Pro	Ser	Leu	Gln	Asn	Ile	Lys	Cys	Asn	Phe	Arg	
				260					265					270	
Ser	Thr	Trp	Glu	Val	Ile	Ser	Asn	Ser	Glu	Asp	Phe	Lys	Asn	Thr	
				275					280					285	
Ile	Pro	Met	Val	Thr	Pro	Pro	Pro	Pro	Pro	Val	Phe	Ser	Leu	Leu	
				290					295					300	
Lys	Ile	Ser	Gln	Arg	Ile	Val	Cys	Leu	Val	Leu	Asp	Lys	Ser	Gly	
				305					310					315	
Ser	Met	Gly	Gly	Lys	Asp	Arg	Leu	Asn	Arg	Met	Asn	Gln	Ala	Ala	
				320					325					330	
Lys	His	Phe	Leu	Leu	Gln	Thr	Val	Glu	Asn	Gly	Ser	Trp	Val	Gly	
				335					340					345	
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<211> 3877
 <212> DNA
 <213> Homo sapiens

<400> 380
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<210> 381

<211> 532

<212> PRT

<213> Homo sapiens

<400> 381

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				20					25					30
Met	Leu	Ala	Cys	Thr	Pro	Lys	Gly	Asp	Glu	Glu	Gln	Leu	Ala	Leu
				35					40					45

Gln	Thr	Leu	Glu	Phe	Leu	Lys	Ile	Pro	Ser	Thr	Leu	Ala	Pro	Pro
				125					130					135
Met	Asp	Pro	Ser	Val	Pro	Ile	Trp	Ile	Ile	Ile	Phe	Gly	Val	Ile
				140					145					150
Phe	Cys	Ile	Ile	Ile	Val	Ala	Ile	Ala	Leu	Leu	Ile	Leu	Ser	Gly
				155					160					165
Ile	Trp	Gln	Arg	Arg	Arg	Lys	Asn	Lys	Glu	Pro	Ser	Glu	Val	Asp
				170					175					180
Asp	Ala	Glu	Asp	Lys	Cys	Glu	Asn	Met	Ile	Thr	Ile	Glu	Asn	Gly
				185					190					195
Ile	Pro	Ser	Asp	Pro	Leu	Asp	Met	Lys	Gly	Gly	Ile	Leu	Met	Met
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Pro Ser

<210> 388
 <211> 1371
 <212> DNA
 <213> Homo sapiens

<400> 388
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 ttaccgaaa aagcgatggg ccgaaagagc tcataaagtg gtggagataa 700
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<210> 389

<211> 215

<212> PRT

<213> Homo sapiens

<400> 389

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Ile	Gln	Leu	Thr	Ala	Leu	Trp	Pro	Ile	Ala	Ala	Val	Glu	Ile	Tyr
				20					25					30
Thr	Ser	Arg	Val	Leu	Glu	Ala	Val	Asn	Gly	Thr	Asp	Ala	Arg	Leu
				35					40					45
Lys	Cys	Thr	Phe	Ser	Ser	Phe	Ala	Pro	Val	Gly	Asp	Ala	Leu	Thr
				50					55					60
Val	Thr	Trp	Asn	Phe	Arg	Pro	Leu	Asp	Gly	Gly	Pro	Glu	Gln	Phe
				65					70					75
Val	Phe	Tyr	Tyr	His	Ile	Asp	Pro	Phe	Gln	Pro	Met	Ser	Gly	Arg
				80					85					90
Phe	Lys	Asp	Arg	Val	Ser	Trp	Asp	Gly	Asn	Pro	Glu	Arg	Tyr	Asp
				95					100					105
Ala	Ser	Ile	Leu	Leu	Trp	Lys	Leu	Gln	Phe	Asp	Asp	Asn	Gly	Thr
				110					115					120
Tyr	Thr	Cys	Gln	Val	Lys	Asn	Pro	Pro	Asp	Val	Asp	Gly	Val	Ile
				125					130					135
Gly	Glu	Ile	Arg	Leu	Ser	Val	Val	His	Thr	Val	Arg	Phe	Ser	Glu

	140		145		150
Ile His Phe Leu	Ala Leu Ala Ile Gly	Ser Ala Cys Ala Leu	Met		
	155		160		165
Ile Ile Ile Val	Ile Val Val Val Leu	Phe Gln His Tyr Arg	Lys		
	170		175		180
Lys Arg Trp Ala	Glu Arg Ala His Lys	Val Val Glu Ile Lys	Ser		
	185		190		195
Lys Glu Glu Glu	Arg Leu Asn Gln Glu	Lys Lys Val Ser Val	Tyr		
	200		205		210
Leu Glu Asp Thr	Asp				
	215				

<210> 390
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 390
 ccgaggccat ctagaggcca gagc 24

<210> 391
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 391
 acaggcagag ccaatggcca gagc 24

<210> 392
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 392
 gagaggactg cgggagtttg ggacctttgt gcagacgtgc tcatg 45

<210> 393
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 393
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<220>
<223> Synthetic oligonucleotide probe

<400> 396
cagggacaca ctctaccatt cgggag 26

<210> 397
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 397
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<210> 398
<211> 907
<212> DNA
<213> Homo sapiens

<400> 398
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<210> 401
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 401
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 Gln His Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu
 35 40 45
 Gly Gln Ala Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu
 50 55 60
 Thr Lys Ala Arg Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu
 65 70 75
 Leu Leu Gly Gln Glu Val Ser Arg Gly Arg Asp Ala Ala Gln Glu
 80 85 90
 Leu Arg Ala Ser Leu Leu Glu Thr Gln Met Glu Glu Asp Ile Leu
 95 100 105
 Gln Leu Gln Ala Glu Ala Thr Ala Glu Val Leu Gly Glu Val Ala
 110 115 120
 Gln Ala Gln Lys Val Leu Arg Asp Ser Val Gln Arg Leu Glu Val
 125 130 135
 Gln Leu Arg Ser Ala Trp Leu Gly Pro Ala Tyr Arg Glu Phe Glu
 140 145 150
 Val Leu Lys Ala His Ala Asp Lys Gln Ser His Ile Leu Trp Ala
 155 160 165
 Leu Thr Gly His Val Gln Arg Gln Arg Arg Glu Met Val Ala Gln
 170 175 180

Gln His Arg Leu Arg Gln Ile Gln Glu Arg Leu His Thr Ala Ala
185 190 195

Leu Pro Ala

<210> 402
<211> 1915
<212> DNA
<213> Homo sapiens

<400> 402
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aaggatggag atctgaagac tcaaattgaa aagctctgga cagaagtcaa 200
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 ttggaagttt ccagccgcaa tttgaaatga aatgacaagg tgtatatttg 1300
 atcaattttc attcccacca ttgcattaca acctctaact taaatgggta 1350
 accctaaggc atatcaaaga agcagattgc atgataaacg gaaatagaaa 1400
 aaaagaacct acattttatt tgcttttagca tccttactct caccttttat 1450
 gagattgaga gtggacttac atttcctttt ttacattttc gtatatttat 1500
 ttttttttagc catcattata tgtttaagtc tattatgggc aaccaatctt 1550
 tggagagctga aaactgaatt taaagaatgc tatcttggaa aattgcatac 1600
 gtctgtgcaa tttttttatt tgccatagtc tattctgctt gtttaactag 1650
 attgtacaaa ataacttcat tgcttaatat caaattacaa agtttagact 1700
 tggaggggaaa tgggcttttt agaagcaaac aatttttaa atattttgtt 1750
 cttcaaataa atagtgttta aacattgaat gtgttttgtg aacaatatcc 1800
 cactttgcaa actttaacta cacatgcttg gaattaagtt ttagctgttt 1850
 tcattgctca ataataaagc ctgaattctg atcaataaaa aaaaaaaaaa 1900
 aaaaaaaaaa aaaaa 1915

<210> 403
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 403
 Met Ala Gln Gln Ala Cys Pro Arg Ala Met Ala Lys Asn Gly Leu
 1 5 10 15
 Val Ile Cys Ile Leu Val Ile Thr Leu Leu Leu Asp Gln Thr Thr
 20 25 30
 Ser His Thr Ser Arg Leu Lys Ala Arg Lys His Ser Lys Arg Arg
 35 40 45
 Val Arg Asp Lys Asp Gly Asp Leu Lys Thr Gln Ile Glu Lys Leu
 50 55 60
 Trp Thr Glu Val Asn Ala Leu Lys Glu Ile Gln Ala Leu Gln Thr
 65 70 75
 Val Cys Leu Arg Gly Thr Lys Val His Lys Lys Cys Tyr Leu Ala
 80 85 90
 Ser Glu Gly Leu Lys His Phe His Glu Ala Asn Glu Asp Cys Ile
 95 100 105

Ser Lys Gly Gly Ile Leu Val Ile Pro Arg Asn Ser Asp Glu Ile
110 115 120

Asn Ala Leu Gln Asp Tyr Gly Lys Arg Ser Leu Pro Gly Val Asn
125 130 135

Asp Phe Trp Leu Gly Ile Asn Asp Met Val Thr Glu Gly Lys Phe
140 145 150

Val Asp Val Asn Gly Ile Ala Ile Ser Phe Leu Asn Trp Asp Arg
155 160 165

Ala Gln Pro Asn Gly Gly Lys Arg Glu Asn Cys Val Leu Phe Ser
170 175 180

Gln Ser Ala Gln Gly Lys Trp Ser Asp Glu Ala Cys Arg Ser Ser
185 190 195

Lys Arg Tyr Ile Cys Glu Phe Thr Ile Pro Lys
200 205

<210> 404
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 404
cctgggttatc cccaggaact ccgac 25

<210> 405
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 405
ctcttgctgc tgcgacaggc ctc 23

<210> 406
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 406
cgccctccaa gactatggta aaaggagcct gccaggtgtc aatgac 46

<210> 407
<211> 570
<212> DNA
<213> Homo sapiens

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aaggaggga ctccttggcc tccgcagccg atcacatgaa ggtggtgcca 100
agtctcctgc tctccgtcct cctggcacag gtgtggtggtg taccgggctt 150
ggccccagc cctcagtcgc cagagacccc agccccctcag aaccagacca 200
gcagggtagt gcaggctccc agggaggaag aggaagatga gcaggaggcc 250
agcaggagaga aggccggtga ggaagagaaa gcctggctga tggccagcag 300
gcagcagctt gccaaaggaga cttcaaactt cggattcagc ctgctgcgaa 350
agatctccat gaggcacgat ggcaacatgg tcttctctcc atttggcatg 400
tccttggcca tgacaggctt gatgctgggg gccacagggc cgactgaaac 450
ccagatcaag agagggtccc acttgcaggc cctgaagccc accaagcccg 500
ggctcctgcc ttccctcttt aagggactca gagagaccct ctcccgaac 550
ctggaactgg gcctctcaca ggggagtttt gccttcatcc acaaggattt 600
tgatgtcaaa gagactttct tcaatttatc caagaggat tttgatacag 650
agtgcgtgcc tatgaatttt cgcaatgcct cacaggccaa aaggctcatg 700
aatcattaca ttaacaaaga gactcggggg aaaattccca aactgtttga 750
tgagattaat cctgaaacca aattaattct tgtggattac atcttgttca 800
aagggaatg gttgacccca tttgaccctg tcttcaccga agtcgacact 850
ttccacctgg acaagtacaa gaccattaag gtgcccatga tgtacggtgc 900
aggcaagttt gcctccacct ttgacaagaa ttttcgttgt catgtcctca 950
aactgcccta ccaaggaaat gccaccatgc tgggtggtcct catggagaaa 1000
atgggtgacc acctcgccct tgaagactac ctgaccacag acttgggtgga 1050
gacatggctc agaaacatga aaaccagaaa catggaagtt ttctttccga 1100
agttcaagct agatcagaag tatgagatgc atgagctgct taggcagatg 1150
ggaatcagaa gaatcttctc accctttgct gaccttagtg aactctcagc 1200
tactggaaga aatctccaag tatccagggt ttacgaaga acagtgattg 1250
aagttgatga aaggggcact gaggcagtgg caggaatctt gtcagaaatt 1300
actgcttatt ccatgcctcc tgtcatcaaa gtggaccggc catttcattt 1350
catgatctat gaagaaacct ctggaatgct tctgtttctg ggcagggtgg 1400
tgaatccgac tctcctataa ttcaggacat gcataagcac ttcgtgctgt 1450

Thr	Lys	Pro	Gly	Leu	Leu	Pro	Ser	Leu	Phe	Lys	Gly	Leu	Arg	Glu	140	145	150
Thr	Leu	Ser	Arg	Asn	Leu	Glu	Leu	Gly	Leu	Ser	Gln	Gly	Ser	Phe	155	160	165
Ala	Phe	Ile	His	Lys	Asp	Phe	Asp	Val	Lys	Glu	Thr	Phe	Phe	Asn	170	175	180
Leu	Ser	Lys	Arg	Tyr	Phe	Asp	Thr	Glu	Cys	Val	Pro	Met	Asn	Phe	185	190	195
Arg	Asn	Ala	Ser	Gln	Ala	Lys	Arg	Leu	Met	Asn	His	Tyr	Ile	Asn	200	205	210
Lys	Glu	Thr	Arg	Gly	Lys	Ile	Pro	Lys	Leu	Phe	Asp	Glu	Ile	Asn	215	220	225
Pro	Glu	Thr	Lys	Leu	Ile	Leu	Val	Asp	Tyr	Ile	Leu	Phe	Lys	Gly	230	235	240
Lys	Trp	Leu	Thr	Pro	Phe	Asp	Pro	Val	Phe	Thr	Glu	Val	Asp	Thr	245	250	255
Phe	His	Leu	Asp	Lys	Tyr	Lys	Thr	Ile	Lys	Val	Pro	Met	Met	Tyr	260	265	270
Gly	Ala	Gly	Lys	Phe	Ala	Ser	Thr	Phe	Asp	Lys	Asn	Phe	Arg	Cys	275	280	285
His	Val	Leu	Lys	Leu	Pro	Tyr	Gln	Gly	Asn	Ala	Thr	Met	Leu	Val	290	295	300
Val	Leu	Met	Glu	Lys	Met	Gly	Asp	His	Leu	Ala	Leu	Glu	Asp	Tyr	305	310	315
Leu	Thr	Thr	Asp	Leu	Val	Glu	Thr	Trp	Leu	Arg	Asn	Met	Lys	Thr	320	325	330
Arg	Asn	Met	Glu	Val	Phe	Phe	Pro	Lys	Phe	Lys	Leu	Asp	Gln	Lys	335	340	345
Tyr	Glu	Met	His	Glu	Leu	Leu	Arg	Gln	Met	Gly	Ile	Arg	Arg	Ile	350	355	360
Phe	Ser	Pro	Phe	Ala	Asp	Leu	Ser	Glu	Leu	Ser	Ala	Thr	Gly	Arg	365	370	375
Asn	Leu	Gln	Val	Ser	Arg	Val	Leu	Arg	Arg	Thr	Val	Ile	Glu	Val	380	385	390
Asp	Glu	Arg	Gly	Thr	Glu	Ala	Val	Ala	Gly	Ile	Leu	Ser	Glu	Ile	395	400	405
Thr	Ala	Tyr	Ser	Met	Pro	Pro	Val	Ile	Lys	Val	Asp	Arg	Pro	Phe	410	415	420
His	Phe	Met	Ile	Tyr	Glu	Glu	Thr	Ser	Gly	Met	Leu	Leu	Phe	Leu			

425

430

435

Gly Arg Val Val Asn Pro Thr Leu Leu
440

<210> 411
<211> 636
<212> DNA
<213> Homo sapiens

<400> 411
ctgggatcag ccactgcagc tccttgagca ctctctacag agacgcggac 50
cccagacatg aggaggctcc tcctgggtcac cagcctggtg gttgtgctgc 100
tgtgggagggc aggtgcagtc ccagcaccca aggtccctat caagatgcaa 150
gtcaaacact ggccctcaga gcaggaccca gagaaggcct ggggcgcccg 200
tgtggtggag cctccggaga aggacgacca gctggtggtg ctgttcctg 250
tccagaagcc gaaactcttg accaccgagg agaagccacg aggtcagggc 300
agggggcccca tccttcagg caccaaggcc tggatggaga ccgaggacac 350
cctgggcccgt gtctgagtc ccgagccga ccatgacagc ctgtaccacc 400
ctccgcctga ggaggaccag ggcgaggaga ggccccggtt gtgggtgatg 450
ccaaatcacc aggtgctcct gggaccggag gaagaccaag accacatcta 500
ccacccccag tagggctcca ggggccatca ctgccccgc cctgtcccaa 550
ggcccaggct gttgggactg ggaccctccc taccctgccc cagctagaca 600
aataaacccc agcaggcaaa aaaaaaaaaa aaaaaa 636

<210> 412
<211> 151
<212> PRT
<213> Homo sapiens

<400> 412
Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu
1 5 10 15
Trp Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met
20 25 30
Gln Val Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp
35 40 45
Gly Ala Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val
50 55 60
Val Leu Phe Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu
65 70 75

Lys	Pro	Arg	Gly	Gln	Gly	Arg	Gly	Pro	Ile	Leu	Pro	Gly	Thr	Lys
				80					85					90
Ala	Trp	Met	Glu	Thr	Glu	Asp	Thr	Leu	Gly	Arg	Val	Leu	Ser	Pro
				95					100					105
Glu	Pro	Asp	His	Asp	Ser	Leu	Tyr	His	Pro	Pro	Pro	Glu	Glu	Asp
				110					115					120
Gln	Gly	Glu	Glu	Arg	Pro	Arg	Leu	Trp	Val	Met	Pro	Asn	His	Gln
				125					130					135
Val	Leu	Leu	Gly	Pro	Glu	Glu	Asp	Gln	Asp	His	Ile	Tyr	His	Pro
				140					145					150

Gln

<210> 413
 <211> 1176
 <212> DNA
 <213> Homo sapiens

<400> 413
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 aggagctctc tgtaccaag gaaagtgcag ctgagactca gacaagatta 100
 caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
 tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200
 gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
 gtgcatttga tggcctgtat tttctccgca ctgagaatgg tggtatctac 300
 cagaccttct gtgacatgac ctctgggggt ggcggctgga ccctgggtggc 350
 cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400
 ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450
 tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
 ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggcttcctc cagacactgg gacataatct 650
 gtttggcatc taccagaaat atccagtga atatggagaa ggaaagtgtt 700
 ggactgacaa cggcccgggtg atccctgtgg tctatgattt tggcgacgcc 750
 cagaaaacag catcttatta ctcacctat ggccagcggg aattcactgc 800
 gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgcct 850

tgtgtgctgg aatgaggggtc accggatgta aactgagca tcaactgcatt 900
 ggtggaggag gatactttcc agaggccagt cccagcagt gtggagattt 950
 ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000
 gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050
 tgtgggaggg aaccagacc tctcctccca accatgagat cccaaggatg 1100
 gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
 taaatcatat tgactcaaga aaaaaa 1176

<210> 414
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 414
 Met Asn Gln Leu Ser Phe Leu Leu Phe Leu Ile Ala Thr Thr Arg
 1 5 10 15
 Gly Trp Ser Thr Asp Glu Ala Asn Thr Tyr Phe Lys Glu Trp Thr
 20 25 30
 Cys Ser Ser Ser Pro Ser Leu Pro Arg Ser Cys Lys Glu Ile Lys
 35 40 45
 Asp Glu Cys Pro Ser Ala Phe Asp Gly Leu Tyr Phe Leu Arg Thr
 50 55 60
 Glu Asn Gly Val Ile Tyr Gln Thr Phe Cys Asp Met Thr Ser Gly
 65 70 75
 Gly Gly Gly Trp Thr Leu Val Ala Ser Val His Glu Asn Asp Met
 80 85 90
 Arg Gly Lys Cys Thr Val Gly Asp Arg Trp Ser Ser Gln Gln Gly
 95 100 105
 Ser Lys Ala Asp Tyr Pro Glu Gly Asp Gly Asn Trp Ala Asn Tyr
 110 115 120
 Asn Thr Phe Gly Ser Ala Glu Ala Ala Thr Ser Asp Asp Tyr Lys
 125 130 135
 Asn Pro Gly Tyr Tyr Asp Ile Gln Ala Lys Asp Leu Gly Ile Trp
 140 145 150
 His Val Pro Asn Lys Ser Pro Met Gln His Trp Arg Asn Ser Ser
 155 160 165
 Leu Leu Arg Tyr Arg Thr Asp Thr Gly Phe Leu Gln Thr Leu Gly
 170 175 180
 His Asn Leu Phe Gly Ile Tyr Gln Lys Tyr Pro Val Lys Tyr Gly
 185 190 195

Glu	Gly	Lys	Cys	Trp	Thr	Asp	Asn	Gly	Pro	Val	Ile	Pro	Val	Val	200	205	210
Tyr	Asp	Phe	Gly	Asp	Ala	Gln	Lys	Thr	Ala	Ser	Tyr	Tyr	Ser	Pro	215	220	225
Tyr	Gly	Gln	Arg	Glu	Phe	Thr	Ala	Gly	Phe	Val	Gln	Phe	Arg	Val	230	235	240
Phe	Asn	Asn	Glu	Arg	Ala	Ala	Asn	Ala	Leu	Cys	Ala	Gly	Met	Arg	245	250	255
Val	Thr	Gly	Cys	Asn	Thr	Glu	His	His	Cys	Ile	Gly	Gly	Gly	Gly	260	265	270
Tyr	Phe	Pro	Glu	Ala	Ser	Pro	Gln	Gln	Cys	Gly	Asp	Phe	Ser	Gly	275	280	285
Phe	Asp	Trp	Ser	Gly	Tyr	Gly	Thr	His	Val	Gly	Tyr	Ser	Ser	Ser	290	295	300
Arg	Glu	Ile	Thr	Glu	Ala	Ala	Val	Leu	Leu	Phe	Tyr	Arg			305	310	

<210> 415
 <211> 1281
 <212> DNA
 <213> Homo sapiens

<400> 415
 gccggagccgg cgccggctgc gcagaggagc cgctctcgcc gccgccacct 50
 cggctgggag cccacgaggc tgccgcatcc tgccctcgga acaatgggac 100
 tcggcgcgcg aggtgcttgg gccgcgctgc tcctggggac gctgcaggtg 150
 ctagcgctgc tggggggcgc ccatgaaagc gcagccatgg cggcatctgc 200
 aaacatagag aattctgggc ttccacacaa ctccagtgtt aactcaacag 250
 agactctcca acatgtgcct tctgaccata caaatgaaac ttccaacagt 300
 actgtgaaac caccaacttc agttgcctca gactccagta atacaacggt 350
 caccaccatg aaacctacag cggcatctaa tacaacaaca ccagggatgg 400
 tctcaacaaa tatgacttct accaccttaa agtctacacc caaaacaaca 450
 agtgtttcac agaacacatc tcagatatca acatccacaa tgaccgtaac 500
 ccacaatagt tcagtgcacat ctgctgcttc atcagtaaca atcacaacaa 550
 ctatgcattc tgaagcaaag aaaggatcaa aatttgatac tgggagcttt 600
 gttggtggta ttgtattaac gctgggagtt ttatctattc tttacattgg 650
 atgcaaaatg tattactcaa gaagaggcat tcggtatcga accatagatg 700

aacatgatgc catcatttaa ggaaatccat ggaccaagga tggaatacag 750
attgatgctg ccctatcaat taattttggt ttattaatag tttaaaacaa 800
tattctcttt ttgaaaatag tataaacagg ccatgcatat aatgtacagt 850
gtattacgta aatatgtaaa gattcttcaa ggtaacaagg gtttgggttt 900
tgaaataaac atctggatct tatagaccgt tcatacaatg gttttagcaa 950
gttcatagta agacaaacaa gtcctatctt ttttttttgg ctgggggtggg 1000
ggcattggtc acatatgacc agtaattgaa agacgtcatc actgaaagac 1050
agaatgccat ctgggcatac aaataagaag tttgtcacag cactcaggat 1100
tttgggtatc ttttgtagct cacataaaga acttcagtgc ttttcagagc 1150
tggatatatc ttaattacta atgccacaca gaaattatac aatcaaacta 1200
gatctgaagc ataatttaag aaaaacatca acattttttg tgctttaaac 1250
tgtagtagtt ggtctagaaa caaaatactc c 1281

<210> 416
<211> 208
<212> PRT
<213> Homo sapiens

<400> 416
Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly
1 5 10 15
Thr Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala
20 25 30
Ala Met Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His
35 40 45
Asn Ser Ser Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser
50 55 60
Asp His Thr Asn Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr
65 70 75
Ser Val Ala Ser Asp Ser Ser Asn Thr Thr Val Thr Thr Met Lys
80 85 90
Pro Thr Ala Ala Ser Asn Thr Thr Thr Pro Gly Met Val Ser Thr
95 100 105
Asn Met Thr Ser Thr Thr Leu Lys Ser Thr Pro Lys Thr Thr Ser
110 115 120
Val Ser Gln Asn Thr Ser Gln Ile Ser Thr Ser Thr Met Thr Val
125 130 135
Thr His Asn Ser Ser Val Thr Ser Ala Ala Ser Ser Val Thr Ile

Ile	Ile	Tyr	Leu	Ser	Ile	Leu	Gly	Leu	Leu	Leu	Leu	Tyr	Met	Val
				110					115					120
Tyr	Leu	Thr	Leu	Val	Glu	Pro	Ile	Leu	Lys	Arg	Arg	Leu	Phe	Gly
				125					130					135
His	Ala	Gln	Leu	Ile	Gln	Ser	Asp	Asp	Asp	Ile	Gly	Asp	His	Gln
				140					145					150
Pro	Phe	Ala	Asn	Ala	His	Asp	Val	Leu	Ala	Arg	Ser	Arg	Ser	Arg
				155					160					165
Ala	Asn	Val	Leu	Asn	Lys	Val	Glu	Tyr	Ala	Gln	Gln	Arg	Trp	Lys
				170					175					180
Leu	Gln	Val	Gln	Glu	Gln	Arg	Lys	Ser	Val	Phe	Asp	Arg	His	Val
				185					190					195
Val	Leu	Ser												

<210> 419
 <211> 681
 <212> DNA
 <213> Homo sapiens

<400> 419
 gcacctgcga ccaccgtgag cagtcattggc gtactccaca gtgcagagag 50
 tcgctctggc ttctgggctt gtcttggttc tgtcgtgtgt gctgcccaag 100
 gccttctgt cccgcgggaa gcggcaggag ccgccgccga cacctgaagg 150
 aaaattgggc cgatttccac ctatgatgca tcatcaccag gcacctcag 200
 atggccagac tcctggggct cgtttccaga ggtctcacct tgccgaggca 250
 tttgcaaagg ccaaaggatc aggtggaggt gctggaggag gaggtagtgg 300
 aagaggtctg atggggcaga ttattccaat ctacggtttt gggatttttt 350
 tatatatact gtacattcta tttaaggtaa gtagaatcat cctaatacata 400
 ttacatcaat gaaaatctaa tatggcgata aaaatcattg tctacattaa 450
 aacttcttat agttcataaa attatttcaa atocatcatc tctttaaatc 500
 ctgcctcctc ttcatgaggt acttaggata gccattattt cagtttcaca 550
 taagaatgtt tactcaatgt ttaagtgttt tgccccaaaa ttcacaacta 600
 acaaggcaga actaggactt gaacatggat cttttggttc ttaatccagt 650
 gagtgatata attcaatgca ctcccctgcc a 681

<210> 420
 <211> 128
 <212> PRT

<213> Homo sapiens

<400> 420

Met	Ala	Tyr	Ser	Thr	Val	Gln	Arg	Val	Ala	Leu	Ala	Ser	Gly	Leu	
1				5					10					15	
Val	Leu	Ala	Leu	Ser	Leu	Leu	Leu	Pro	Lys	Ala	Phe	Leu	Ser	Arg	
			20						25					30	
Gly	Lys	Arg	Gln	Glu	Pro	Pro	Pro	Thr	Pro	Glu	Gly	Lys	Leu	Gly	
			35						40					45	
Arg	Phe	Pro	Pro	Met	Met	His	His	His	Gln	Ala	Pro	Ser	Asp	Gly	
				50					55					60	
Gln	Thr	Pro	Gly	Ala	Arg	Phe	Gln	Arg	Ser	His	Leu	Ala	Glu	Ala	
			65						70					75	
Phe	Ala	Lys	Ala	Lys	Gly	Ser	Gly	Gly	Gly	Ala	Gly	Gly	Gly	Gly	
			80						85					90	
Ser	Gly	Arg	Gly	Leu	Met	Gly	Gln	Ile	Ile	Pro	Ile	Tyr	Gly	Phe	
				95					100					105	
Gly	Ile	Phe	Leu	Tyr	Ile	Leu	Tyr	Ile	Leu	Phe	Lys	Val	Ser	Arg	
			110						115					120	
Ile	Ile	Leu	Ile	Ile	Leu	His	Gln								
			125												

<210> 421

<211> 1630

<212> DNA

<213> Homo sapiens

<400> 421

cggctcgagt gcagctgtgg ggagatttca gtgcattgcc tcccctgggt 50

gctcttcattc ttggatttga aagttgagag cagcatgttt tgcccactga 100

aactcatcct gctgccagtg ttactggatt attccttggg cctgaatgac 150

ttgaatgttt ccccgctga gctaacagtc catgtgggtg attcagctct 200

gatgggatgt gttttccaga gcacagaaga caaatgtata ttcaagatag 250

actggactct gtcaccagga gagcacgcca aggacgaata tgtgctatac 300

tattactcca atctcagtgt gcctattggg cgcttccaga accgcgtaca 350

cttgatgggg gacatcttat gcaatgatgg ctctctcctg ctccaagatg 400

tgcaagaggc tgaccagga acctatatct gtgaaatccg cctcaaaggg 450

gagagccagg tgttcaagaa ggcggtggta ctgcatgtgc ttccagagga 500

gcccaaagag ctcatggtcc atgtgggtgg attgattcag atgggatgtg 550

ttttccagag cacagaagtg aaacacgtga ccaaggtaga atggatattt 600
 tcaggacggc gcgcaaagga ggagattgta tttcgttact accacaaact 650
 caggatgtct gtggagtact cccagagctg gggccacttc cagaatcgtg 700
 tgaacctggt gggggacatt ttccgcaatg acggttccat catgcttcaa 750
 ggagtgaggg agtcagatgg aggaaactac acctgcagta tccacctagg 800
 gaacctggtg ttcaagaaaa ccattgtgct gcatgtcagc ccggaagagc 850
 ctggaacact ggtgaccccg gcagccctga ggcctctggt cttgggtggt 900
 aatcagttgg tgatcattgt ggaattgtc tgtgccacaa tcctgctgct 950
 ccctgttctg atattgatcg tgaagaagac ctgtggaaat aagagttcag 1000
 tgaattctac agtcttggtg aagaacacga agaagactaa tccagagata 1050
 aaagaaaaac cctgccattt tgaaagatgt gaaggggaga aacacattta 1100
 ctcccccaata attgtacggg aggtgatcga ggaagaagaa ccaagtgaaa 1150
 aatcagaggc cacctacatg accatgcacc cagtttggcc ttctctgagg 1200
 tcagatcgga acaactcact tgaaaaaaag tcaggtgggg gaatgccaaa 1250
 aacacagcaa gccttttgag aagaatggag agtcccttca tctcagcagc 1300
 ggtggagact ctctcctgtg tgtgtcctgg gccactctac cagtgatttc 1350
 agactcccg cctcccagct gtccctcctgt ctcatgtttt ggtcaataca 1400
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 gaacaggcct gctgagggga ggggagcatg gacttggcct ctggagtggg 1500
 aactggccc tgggaaccag gctgagctga gtggcctcaa accccccgtt 1550
 ggatcagacc ctctgtggg cagggttctt agtggatgag ttactgggaa 1600
 gaatcagaga taaaaaccaa cccaaatcaa 1630

<210> 422
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 422
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 Tyr Ser Leu Gly Leu Asn Asp Leu Asn Val Ser Pro Pro Glu Leu
 20 25 30
 Thr Val His Val Gly Asp Ser Ala Leu Met Gly Cys Val Phe Gln
 35 40 45

Ser	Thr	Glu	Asp	Lys	Cys	Ile	Phe	Lys	Ile	Asp	Trp	Thr	Leu	Ser	
				50					55					60	
Pro	Gly	Glu	His	Ala	Lys	Asp	Glu	Tyr	Val	Leu	Tyr	Tyr	Tyr	Ser	
				65					70					75	
Asn	Leu	Ser	Val	Pro	Ile	Gly	Arg	Phe	Gln	Asn	Arg	Val	His	Leu	
				80					85					90	
Met	Gly	Asp	Ile	Leu	Cys	Asn	Asp	Gly	Ser	Leu	Leu	Leu	Gln	Asp	
				95					100					105	
Val	Gln	Glu	Ala	Asp	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	
				110					115					120	
Lys	Gly	Glu	Ser	Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	
				125					130					135	
Leu	Pro	Glu	Glu	Pro	Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	
				140					145					150	
Ile	Gln	Met	Gly	Cys	Val	Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	
				155					160					165	
Thr	Lys	Val	Glu	Trp	Ile	Phe	Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	
				170					175					180	
Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys	Leu	Arg	Met	Ser	Val	Glu	Tyr	
				185					190					195	
Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn	Arg	Val	Asn	Leu	Val	Gly	
				200					205					210	
Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met	Leu	Gln	Gly	Val	Arg	
				215					220					225	
Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile	His	Leu	Gly	Asn	
				230					235					240	
Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser	Pro	Glu	Glu	
				245					250					255	
Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu	Val	Leu	
				260					265					270	
Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala	Thr	
				275					280					285	
Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys	
				290					295					300	
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	
				305					310					315	
Lys	Lys	Thr	Asn	Pro	Glu	Ile	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	
				320					325					330	
Arg	Cys	Glu	Gly	Glu	Lys	His	Ile	Tyr	Ser	Pro	Ile	Ile	Val	Arg	

	335		340		345
Glu Val Ile Glu Glu Glu Glu Pro Ser	Glu Lys Ser Glu Ala Thr				
350	355	360			
Tyr Met Thr Met His Pro Val Trp Pro	Ser Leu Arg Ser Asp Arg				
365	370	375			
Asn Asn Ser Leu Glu Lys Lys Ser Gly	Gly Gly Met Pro Lys Thr				
380	385	390			
Gln Gln Ala Phe					

<210> 423
 <211> 963
 <212> DNA
 <213> Homo sapiens

<400> 423
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 ccatctcaca tgggttctacc ctactaaaga caggaagatc ataaactgac 100
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 ctctgagctc agttgcagta ctcggaagc catgcaggat gaagatggat 200
 acatcacctt aaatattaaa actcggaac cagctctcgt ctccgttggc 250
 cctgcatcct cctcctggtg gcgtgtgatg gctttgattc tgctgatcct 300
 gtgcgtgggg atggttgtcg ggctggtggc tctggggatt tggctctgtca 350
 tgcagcgcaa ttacctaca gatgagaatg aaaatcgcac aggaactctg 400
 caacaattag caaagcgctt ctgtcaatat gtggtaaac aatcagaact 450
 aaagggcact ttcaaaggtc ataatgcag cccctgtgac acaaactgga 500
 gatattatgg agatagctgc tatgggttct tcaggcaca cttaacatgg 550
 gaagagagta agcagtactg cactgacatg aatgctactc tcctgaagat 600
 tgacaaccgg aacattgtgg agtacatcaa agccaggact catttaattc 650
 gttgggtcgg attatctcgc cagaagtcga atgaggtctg gaagtgggag 700
 gatggctcgg ttatctcaga aaatatgttt gagtttttgg aagatggaaa 750
 aggaaatatg aattgtgctt attttcataa tgggaaaatg caccctacct 800
 tctgtgagaa caaacattat ttaatgtgtg agaggaaggc tggcatgacc 850
 aagggtggacc aactacctta atgcaaagag gtggacagga taacacagat 900
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aaaaaaaaaa aaa 963

<210> 424

<211> 229

<212> PRT

<213> Homo sapiens

<400> 424

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Lys	Pro	Ala	Leu	Val	Ser	Val	Gly	Pro	Ala	Ser	Ser	Ser	Trp	Trp
				20					25					30

Arg	Val	Met	Ala	Leu	Ile	Leu	Leu	Ile	Leu	Cys	Val	Gly	Met	Val
				35					40					45

Val	Gly	Leu	Val	Ala	Leu	Gly	Ile	Trp	Ser	Val	Met	Gln	Arg	Asn
				50					55					60

Tyr	Leu	Gln	Asp	Glu	Asn	Glu	Asn	Arg	Thr	Gly	Thr	Leu	Gln	Gln
				65					70					75

Leu	Ala	Lys	Arg	Phe	Cys	Gln	Tyr	Val	Val	Lys	Gln	Ser	Glu	Leu
				80					85					90

Lys	Gly	Thr	Phe	Lys	Gly	His	Lys	Cys	Ser	Pro	Cys	Asp	Thr	Asn
				95					100					105

Trp	Arg	Tyr	Tyr	Gly	Asp	Ser	Cys	Tyr	Gly	Phe	Phe	Arg	His	Asn
				110					115					120

Leu	Thr	Trp	Glu	Glu	Ser	Lys	Gln	Tyr	Cys	Thr	Asp	Met	Asn	Ala
				125					130					135

Thr	Leu	Leu	Lys	Ile	Asp	Asn	Arg	Asn	Ile	Val	Glu	Tyr	Ile	Lys
				140					145					150

Ala	Arg	Thr	His	Leu	Ile	Arg	Trp	Val	Gly	Leu	Ser	Arg	Gln	Lys
				155					160					165

Ser	Asn	Glu	Val	Trp	Lys	Trp	Glu	Asp	Gly	Ser	Val	Ile	Ser	Glu
				170					175					180

Asn	Met	Phe	Glu	Phe	Leu	Glu	Asp	Gly	Lys	Gly	Asn	Met	Asn	Cys
				185					190					195

Ala	Tyr	Phe	His	Asn	Gly	Lys	Met	His	Pro	Thr	Phe	Cys	Glu	Asn
				200					205					210

Lys	His	Tyr	Leu	Met	Cys	Glu	Arg	Lys	Ala	Gly	Met	Thr	Lys	Val
				215					220					225

Asp Gln Leu Pro

<210> 425

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
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<400> 425
tgcagcccct gtgacacaaa ctgg 24

<210> 426
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 426
ctgagataac cgagccatcc tcccac 26

<210> 427
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 427
gcttcctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 428
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 428
ccaccaatgg cagccccacc t 21

<210> 429
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<212> DNA
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<220>
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<400> 429
gactgccctc cctgcca 17

<210> 430
<211> 24
<212> DNA
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<220>
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<400> 430
caaaaagcct ggaagtcttc aaag 24

<210> 431
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 431
cagctggact gcaggtgcta 20

<210> 432
<211> 22
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 432
cagtgagcac agcaagtgtc ct 22

<210> 433
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 433
ggccacctcc ttgagtcttc agttccct 28

<210> 434
<211> 24
<212> DNA
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<220>
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<400> 434
caactactgg ctaaagctgg tgaa 24

<210> 435
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<212> DNA
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<220>
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<210> 436
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<220>
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<400> 436
 tggccatccc taccagaggc aaaa 24

<210> 437
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<220>
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<400> 437
 ctgaagacga cgcggattac ta 22

<210> 438
 <211> 19
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<220>
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<400> 438
 ggcagaaatg ggaggcaga 19

<210> 439
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<220>
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<400> 439
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<210> 440
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<220>
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<400> 440
 agcagcagcc atgtagaatg aa 22

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<210> 441
<211> 22
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<220>
<223> Synthetic oligonucleotide probe

<400> 441
aatacgaaca gtgcacgctg at 22

<210> 442
<211> 23
<212> DNA
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<220>
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<400> 442
tccagagagc caagcacggc aga 23

<210> 443
<211> 22
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<220>
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<400> 443
tctagccagc ttggctccaa ta 22

<210> 444
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<220>
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<400> 444
cctggctcta gcaccaactc ata 23

<210> 445
<211> 25
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<220>
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<400> 445
tcagtggccc taaggagatg ggcct 25

<210> 446
<211> 24
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<213> Artificial Sequence

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caggatacag tgggaatctt gaga 24

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<220>
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<400> 447
cctgaagggc ttggagctta gt 22

<210> 448
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<220>
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<400> 448
tctttggcca tttcccatgg ctca 24

<210> 449
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 449
cccatggcga ggaggaat 18

<210> 450
<211> 19
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<220>
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<400> 450
tgcgtacgtg tgccttcag 19

<210> 451
<211> 24
<212> DNA
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<220>

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<223> Synthetic oligonucleotide probe

<400> 451
cagcacccca ggcagtctgt gtgt 24

<210> 452
<211> 24
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 452
aacgtgctac acgaccagtg tact 24

<210> 453
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 453
cacagcatat tcagatgact aaatcca 27

<210> 454
<211> 31
<212> DNA
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<220>
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<400> 454
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<400> 455
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<210> 456
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<220>
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<400> 456

tgatgtgcct ggctcagaac 20

<210> 457

<211> 24

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<220>

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<400> 458

aagatgcgcc aggtttotta 20

<210> 459

<211> 24

<212> DNA

<213> Artificial Sequence

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<400> 459

ctcctgtacg gtctgtcac ttat 24

<210> 460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

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<400> 460

tggtgtcag tccagtgtgc atgg 24

<210> 461

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<212> DNA

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<220>

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<400> 461

gcatagggat agataagatc ctgctttat 29

<210> 462

<211> 27
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 462
 caaattaaag tacccatcag gagagaa 27

 <210> 463
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 <212> DNA
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 <400> 463
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 <210> 464
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 <220>
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 <400> 464
 gtgctgcccc caattcatga 20

 <210> 465
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 <220>
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 <400> 465
 gtccttggtgta tgggtctgaa ttatat 26

 <210> 466
 <211> 31
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 <210> 467
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<220>
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<400> 467
ctgaggaacc agccatgtct ct 22

<210> 468
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<212> DNA
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<220>
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<400> 468
gaccagatgc aggtacagga tga 23

<210> 469
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<220>
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<400> 469
ctgccccttc agtcatgcca acctt 25

<210> 470
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<400> 470
gggtggaggc tcaactgagta ga 22

<210> 471
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<220>
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<400> 471
caatacaggt aatgaaactc tgcttctt 28

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<400> 472
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<210> 474
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ccgtcgttca gcaacatgac 20

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accgcctacc gctgtgcca 20

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<400> 477
cctgagagca agaaggttga gaat 24

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 tgggctgtag aagagttggt g 21

 <210> 480
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 <210> 481
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 <210> 482
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 <400> 482
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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 483

actctccccc tcaacagcct cctgag 26

<210> 484

<211> 20

<212> DNA

<213> Artificial Sequence

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 485

acagatccag gagagactcc aca 23

<210> 486

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 486

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<210> 487

<211> 23

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<210> 488

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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atagaggggt cccagaagtg 20

<210> 489
<211> 21
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<210> 490
<211> 19
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<220>
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<400> 490
gctcagccaa acactgtca 19

<210> 491
<211> 17
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<220>
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<400> 491
ggggccctga cagtgtt 17

<210> 492
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 492
ctgagccgag actggagcat ctacac 26

<210> 493
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 493

gtgggcagcg tcttgtc 17

<210> 494

<211> 1231

<212> DNA

<213> Homo Sapien

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cagcccgcgc gggagccgga ccgccgccgg aggagctcgg acggcatgct 150
gagccccctc ctttgctgaa gcccagtgct ggagaagccc gggcaaacgc 200
aggctaagga gaccaaagcg gcgaagtcgc gagacagcgg acaagcagcg 250
gaggagaagg aggaggaggc gaaccagag aggggcagca aaagaagcgg 300
tggtggtggg cgtcgtggcc atggcggcgg ctatcgccag ctcgctcatc 350
cgtcagaaga ggcaagcccc cgagcgcgag aaatccaacg cctgcaagtg 400
tgtcagcagc ccagcaaaag gcaagaccag ctgcgacaaa aacaagttaa 450
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agaccagagc ctcagcttaa gggatatagt accaagctat acagccgaca 550
aggctaccac ttgcagctgc aggcggatgg aaccattgat ggcaccaaag 600
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gtggtggcta tccaaggagt tcaaaccaag ctgtacttgg caatgaacag 700
tgagggatac ttgtacacct cggaactttt cacacctgag tgcaaattca 750
aagaatcagt gtttgaaaat tattatgtga catattcatc aatgatatac 800
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agagatcatg aaaggcaacc atgtgaagaa gaacaagcct gcagctcatt 900
ttctgcctaa accactgaaa gtggccatgt acaaggagcc atcactgcac 950
gatctcacgg agttctcccg atctggaagc gggaccccaa ccaagagcag 1000
aagtgtctct ggcgctgctga acggaggcaa atccatgagc cacaatgaat 1050
caacgtagcc agtgagggca aaagaagggc tctgtaacag aaccttacct 1100
ccaggtgctg ttgaattctt ctagcagtcc ttcacccaaa agttcaaatt 1150
tgtcagtgac atttaccaaa caaacaggca gagttcacta ttctatctgc 1200
cattagacct tcttatcatc cataactaaag c 1231

<210> 495
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 <212> PRT
 <213> Homo Sapien

<400> 495
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 Pro Ser Lys Gly Lys Thr Ser Cys Asp Lys Asn Lys Leu Asn Val
 35 40 45
 Phe Ser Arg Val Lys Leu Phe Gly Ser Lys Lys Arg Arg Arg Arg
 50 55 60
 Arg Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu Tyr Ser
 65 70 75
 Arg Gln Gly Tyr His Leu Gln Leu Gln Ala Asp Gly Thr Ile Asp
 80 85 90
 Gly Thr Lys Asp Glu Asp Ser Thr Tyr Thr Leu Phe Asn Leu Ile
 95 100 105
 Pro Val Gly Leu Arg Val Val Ala Ile Gln Gly Val Gln Thr Lys
 110 115 120
 Leu Tyr Leu Ala Met Asn Ser Glu Gly Tyr Leu Tyr Thr Ser Glu
 125 130 135
 Leu Phe Thr Pro Glu Cys Lys Phe Lys Glu Ser Val Phe Glu Asn
 140 145 150
 Tyr Tyr Val Thr Tyr Ser Ser Met Ile Tyr Arg Gln Gln Gln Ser
 155 160 165
 Gly Arg Gly Trp Tyr Leu Gly Leu Asn Lys Glu Gly Glu Ile Met
 170 175 180
 Lys Gly Asn His Val Lys Lys Asn Lys Pro Ala Ala His Phe Leu
 185 190 195
 Pro Lys Pro Leu Lys Val Ala Met Tyr Lys Glu Pro Ser Leu His
 200 205 210
 Asp Leu Thr Glu Phe Ser Arg Ser Gly Ser Gly Thr Pro Thr Lys
 215 220 225
 Ser Arg Ser Val Ser Gly Val Leu Asn Gly Gly Lys Ser Met Ser
 230 235 240
 His Asn Glu Ser Thr
 245

<210> 496

<211> 1471
 <212> DNA
 <213> Homo Sapien

<400> 496
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 tggggggatt tcagtgaaaa aagtggggga tcccctccat ttagagtgtg 200
 gcaaaggaaa aaacaccaag gttgggttcc ttcctgacat tggcagtgcc 250
 ccagtagggg tgggatgagc gaatattccc aaagctaaag tcccacaccc 300
 tgtagattac aagagtggat ttggcaggag tgtgccccaa aatacagtgg 350
 aaaggtgcct gaagatattt aaaccacgtc ttggaaattt agtgggtctt 400
 ggctttggga taggtgaagt gaggacagac actggagagg agggaaagg 450
 gacgttttca ataggaggca aaactcgagg gtgggatcca ctgaggagta 500
 cataggctgc tggatctggt ggagccagca ctgggcccac ggggtggtaac 550
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 acatggccat gaatgctgag ggactgctct acagttcgcc gcatttcaca 1150
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 cgcctctgct ctctaccgcc agcgtcgttc tggccggggc tggtagctcg 1250
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 aaggcagctg cccactttct gcccaagctc ctggaggtgg ccatgtacca 1350

ggagccttct ctccacagtg tccccgaggc ctccccctcc agtccccctg 1400
 cccccgaaa tgtagtcctt ggactggagg ttccctgcac tcccagtgag 1450
 ccagccacca ccacaacctg t 1471

<210> 497
 <211> 225
 <212> PRT
 <213> Homo Sapien

<400> 497
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 20 25 30
 Cys Pro Arg Gly Thr Lys Ser Leu Cys Gln Lys Gln Leu Leu Ile
 35 40 45
 Leu Leu Ser Lys Val Arg Leu Cys Gly Gly Arg Pro Ala Arg Pro
 50 55 60
 Asp Arg Gly Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu
 65 70 75
 Phe Cys Arg Gln Gly Phe Tyr Leu Gln Ala Asn Pro Asp Gly Ser
 80 85 90
 Ile Gln Gly Thr Pro Glu Asp Thr Ser Ser Phe Thr His Phe Asn
 95 100 105
 Leu Ile Pro Val Gly Leu Arg Val Val Thr Ile Gln Ser Ala Lys
 110 115 120
 Leu Gly His Tyr Met Ala Met Asn Ala Glu Gly Leu Leu Tyr Ser
 125 130 135
 Ser Pro His Phe Thr Ala Glu Cys Arg Phe Lys Glu Cys Val Phe
 140 145 150
 Glu Asn Tyr Tyr Val Leu Tyr Ala Ser Ala Leu Tyr Arg Gln Arg
 155 160 165
 Arg Ser Gly Arg Ala Trp Tyr Leu Gly Leu Asp Lys Glu Gly Gln
 170 175 180
 Val Met Lys Gly Asn Arg Val Lys Lys Thr Lys Ala Ala Ala His
 185 190 195
 Phe Leu Pro Lys Leu Leu Glu Val Ala Met Tyr Gln Glu Pro Ser
 200 205 210
 Leu His Ser Val Pro Glu Ala Ser Pro Ser Ser Pro Pro Ala Pro
 215 220 225

<210> 498

102280 2551460

<211> 744
 <212> DNA
 <213> Homo Sapien

<400> 498
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 gcaagaaccg cgggctctgc aacggcaacc tgggtgatat cttctccaaa 150
 gtgcgcacatc tcggcctcaa gaagcgcagg ttgcggcgcc aagatcccca 200
 gctcaagggg atagtgacca gggttatattg caggcaaggc tactacttgc 250
 aaatgcaccc cgatggagct ctcgatggaa ccaaggatga cagcactaat 300
 tctacactct tcaacctcat accagtggga ctacgtgttg ttgccatcca 350
 gggagtgaaa acagggttgt atatagccat gaatggagaa gggtacctct 400
 acccatcaga actttttacc cctgaatgca agtttaaaga atctgttttt 450
 gaaaattatt atgtaatcta ctcatccatg ttgtacagac aacaggaatc 500
 tggtagagcc tggtttttgg gattaaataa ggaagggcaa gctatgaaag 550
 ggaacagagt aaagaaaacc aaaccagcag ctcattttct acccaagcca 600
 ttggaagtgt ccatgtaccg agaaccatct ttgcatgatg ttgggggaaac 650
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 taatgaatgg aggcaaacca gtcaacaaga gtaagacaac atag 744

<210> 499
 <211> 247
 <212> PRT
 <213> Homo Sapien

<400> 499
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 20 25 30
 Ser Ser Pro Ser Lys Asn Arg Gly Leu Cys Asn Gly Asn Leu Val
 35 40 45
 Asp Ile Phe Ser Lys Val Arg Ile Phe Gly Leu Lys Lys Arg Arg
 50 55 60
 Leu Arg Arg Gln Asp Pro Gln Leu Lys Gly Ile Val Thr Arg Leu
 65 70 75
 Tyr Cys Arg Gln Gly Tyr Tyr Leu Gln Met His Pro Asp Gly Ala
 80 85 90

Leu	Asp	Gly	Thr	Lys	Asp	Asp	Ser	Thr	Asn	Ser	Thr	Leu	Phe	Asn	
				95					100					105	
Leu	Ile	Pro	Val	Gly	Leu	Arg	Val	Val	Ala	Ile	Gln	Gly	Val	Lys	
				110					115					120	
Thr	Gly	Leu	Tyr	Ile	Ala	Met	Asn	Gly	Glu	Gly	Tyr	Leu	Tyr	Pro	
				125					130					135	
Ser	Glu	Leu	Phe	Thr	Pro	Glu	Cys	Lys	Phe	Lys	Glu	Ser	Val	Phe	
				140					145					150	
Glu	Asn	Tyr	Tyr	Val	Ile	Tyr	Ser	Ser	Met	Leu	Tyr	Arg	Gln	Gln	
				155					160					165	
Glu	Ser	Gly	Arg	Ala	Trp	Phe	Leu	Gly	Leu	Asn	Lys	Glu	Gly	Gln	
				170					175					180	
Ala	Met	Lys	Gly	Asn	Arg	Val	Lys	Lys	Thr	Lys	Pro	Ala	Ala	His	
				185					190					195	
Phe	Leu	Pro	Lys	Pro	Leu	Glu	Val	Ala	Met	Tyr	Arg	Glu	Pro	Ser	
				200					205					210	
Leu	His	Asp	Val	Gly	Glu	Thr	Val	Pro	Lys	Pro	Gly	Val	Thr	Pro	
				215					220					225	
Ser	Lys	Ser	Thr	Ser	Ala	Ser	Ala	Ile	Met	Asn	Gly	Gly	Lys	Pro	
				230					235					240	
Val	Asn	Lys	Ser	Lys	Thr	Thr									
				245											

<210> 500
 <211> 2906
 <212> DNA
 <213> Homo Sapien

<400> 500
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 tggaaccgaa cgcaatggat aaactgattg tgcaagagag aaggaagaac 150
 gaagcttttt cttgtgagcc ctggatctta acacaaatgt gtatatgtgc 200
 acacagggag cattcaagaa tgaaataaac cagagttaga cccgcggggg 250
 ttggtgtgtt ctgacataaa taaataatct taaagcagct gttccctcc 300
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 agaaaaaagt atgttcattt ttctctataa aggagaaaagt gagccaagga 400
 gatatttttg gaatgaaaag tttggggctt ttttagtaaa gtaaagaact 450
 ggtgtggtgg tgttttcctt tctttttgaa tttcccacia gaggagagga 500

aattaataat acatctgcaa agaaatttca gagaagaaaa gttgaccgcg 550
gcagattgag gcattgattg ggggagagaa accagcagag cacagttgga 600
tttgtgccta tgttgactaa aattgacgga taattgcagt tggatttttc 650
ttcatcaacc tccttttttt taaattttta ttccttttgg tatcaagatc 700
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 aggactgttg aaattattaa tgtggatgat gagattacgg gagacacacc 2550
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 actataactc atacaaatct cccttcaacc acacaacaac agttaacaca 2650
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 caaaaaacaa acaatcaaaa aaaaagacag tttattaaaa atgacacaaa 2800
 tgactgggct aaatctactg tttcaaaaaa gtgtctttac aaaaaaacia 2850
 aaaagaaaag aaatttattt attaaaaatt ctattgtgat ctaaagcaga 2900
 caaaaa 2906

<210> 501
 <211> 640
 <212> PRT
 <213> Homo Sapien

<400> 501
 Met Leu Asn Lys Met Thr Leu His Pro Gln Gln Ile Met Ile Gly
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 Pro Arg Phe Asn Arg Ala Leu Phe Asp Pro Leu Leu Val Val Leu
 20 25 30
 Leu Ala Leu Gln Leu Leu Val Val Ala Gly Leu Val Arg Ala Gln
 35 40 45
 Thr Cys Pro Ser Val Cys Ser Cys Ser Asn Gln Phe Ser Lys Val
 50 55 60

<210> 502
 <211> 2458
 <212> DNA
 <213> Homo Sapien

<400> 502
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 cggccggcac atggctgcag ccacctcgcg cgcaccccgga ggccgcgcg 100
 ccagctcgcc cgaggtccgt cggaggcgcc cggccgcccc ggagccaagc 150
 agcaactgag cggggaagcg cccgcgtccg gggatcgggga tgtccctcct 200
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 ctgagatcaa gagagtggca gaggaaaagg tcactttgcc ctgccaccat 300
 caactggggc ttccagaaaa agacactctg gatattgaat ggctgctcac 350
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 tctacaataa cttgactgag gaacagaagg gccgagtggc ctttgcttcc 450
 aatttcctgg caggagatgc ctccttgagc attgaacctc tgaagcccag 500
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 gtcacacctc ggcacagagc ccattgtgta ttactggcag cgaatccgag 700
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 aaccaccctg gacgagttct gctgcagaat cttaccatgt cctactctgg 800
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 aatttgtgac aaaggattgt gaagagcttt ccatcttcat gatgttatga 2050
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 gtgagccgag attatgccat tgcactccag cctgggtgac agagcgggac 2450
 tccgtctc 2458

<210> 503
 <211> 373
 <212> PRT
 <213> Homo Sapien

<400> 503
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 Thr Leu Gly Thr His Thr Glu Ile Lys Arg Val Ala Glu Glu Lys

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				35					40					45					
Thr	Leu	Asp	Ile	Glu	Trp	Leu	Leu	Thr	Asp	Asn	Glu	Gly	Asn	Gln					
				50					55					60					
Lys	Val	Val	Ile	Thr	Tyr	Ser	Ser	Arg	His	Val	Tyr	Asn	Asn	Leu					
				65					70					75					
Thr	Glu	Glu	Gln	Lys	Gly	Arg	Val	Ala	Phe	Ala	Ser	Asn	Phe	Leu					
				80					85					90					
Ala	Gly	Asp	Ala	Ser	Leu	Gln	Ile	Glu	Pro	Leu	Lys	Pro	Ser	Asp					
				95					100					105					
Glu	Gly	Arg	Tyr	Thr	Cys	Lys	Val	Lys	Asn	Ser	Gly	Arg	Tyr	Val					
				110					115					120					
Trp	Ser	His	Val	Ile	Leu	Lys	Val	Leu	Val	Arg	Pro	Ser	Lys	Pro					
				125					130					135					
Lys	Cys	Glu	Leu	Glu	Gly	Glu	Leu	Thr	Glu	Gly	Ser	Asp	Leu	Thr					
				140					145					150					
Leu	Gln	Cys	Glu	Ser	Ser	Ser	Gly	Thr	Glu	Pro	Ile	Val	Tyr	Tyr					
				155					160					165					
Trp	Gln	Arg	Ile	Arg	Glu	Lys	Glu	Gly	Glu	Asp	Glu	Arg	Leu	Pro					
				170					175					180					
Pro	Lys	Ser	Arg	Ile	Asp	Tyr	Asn	His	Pro	Gly	Arg	Val	Leu	Leu					
				185					190					195					
Gln	Asn	Leu	Thr	Met	Ser	Tyr	Ser	Gly	Leu	Tyr	Gln	Cys	Thr	Ala					
				200					205					210					
Gly	Asn	Glu	Ala	Gly	Lys	Glu	Ser	Cys	Val	Val	Arg	Val	Thr	Val					
				215					220					225					
Gln	Tyr	Val	Gln	Ser	Ile	Gly	Met	Val	Ala	Gly	Ala	Val	Thr	Gly					
				230					235					240					
Ile	Val	Ala	Gly	Ala	Leu	Leu	Ile	Phe	Leu	Leu	Val	Trp	Leu	Leu					
				245					250					255					
Ile	Arg	Arg	Lys	Asp	Lys	Glu	Arg	Tyr	Glu	Glu	Glu	Glu	Arg	Pro					
				260					265					270					
Asn	Glu	Ile	Arg	Glu	Asp	Ala	Glu	Ala	Pro	Lys	Ala	Arg	Leu	Val					
				275					280					285					
Lys	Pro	Ser	Ser	Ser	Ser	Ser	Gly	Ser	Arg	Ser	Ser	Arg	Ser	Gly					
				290					295					300					
Ser	Ser	Ser	Thr	Arg	Ser	Thr	Ala	Asn	Ser	Ala	Ser	Arg	Ser	Gln					
				305					310					315					

Arg	Thr	Leu	Ser	Thr	Asp	Ala	Ala	Pro	Gln	Pro	Gly	Leu	Ala	Thr
				320					325					330
Gln	Ala	Tyr	Ser	Leu	Val	Gly	Pro	Glu	Val	Arg	Gly	Ser	Glu	Pro
				335					340					345
Lys	Lys	Val	His	His	Ala	Asn	Leu	Thr	Lys	Ala	Glu	Thr	Thr	Pro
				350					355					360
Ser	Met	Ile	Pro	Ser	Gln	Ser	Arg	Ala	Phe	Gln	Thr	Val		
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<210> 504
 <211> 3060
 <212> DNA
 <213> Homo Sapien

<400> 504
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 ctctgtgcg gagtagtgga tttcgccaga agtttgagta tcactactcc 150
 tgaagagatg attgaaaaag ccaaagggga aactgcctat ctgccatgca 200
 aatttacgct tagtcccgaa gaccagggac cgctggacat cgagtggctg 250
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 tggagacaaa atttatgatg actactatcc agatctgaaa ggccgagtac 350
 attttacgag taatgatctc aaatctggtg atgcatcaat aaatgtaacg 400
 aatttacaac tgtcagatat tggcacatat cagtgcaaag tgaaaaaagc 450
 tcctggtggt gcaaataaga agattcatct ggtagttctt gttaagcctt 500
 caggtgcgag atgttacggt gatggatctg aagaaattgg aagtgacttt 550
 aagataaaat gtgaacccaa agaaggttca cttccattac agtatgagtg 600
 gcaaaaattg tctgactcac agaaaatgcc cacttcatgg ttagcagaaa 650
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 aaaaaaaaaa 3060

<210> 505
 <211> 352
 <212> PRT
 <213> Homo Sapien

<400> 505
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 20 25 30
 Lys Ala Lys Gly Glu Thr Ala Tyr Leu Pro Cys Lys Phe Thr Leu
 35 40 45
 Ser Pro Glu Asp Gln Gly Pro Leu Asp Ile Glu Trp Leu Ile Ser
 50 55 60
 Pro Ala Asp Asn Gln Lys Val Asp Gln Val Ile Ile Leu Tyr Ser
 65 70 75
 Gly Asp Lys Ile Tyr Asp Asp Tyr Tyr Pro Asp Leu Lys Gly Arg
 80 85 90
 Val His Phe Thr Ser Asn Asp Leu Lys Ser Gly Asp Ala Ser Ile
 95 100 105
 Asn Val Thr Asn Leu Gln Leu Ser Asp Ile Gly Thr Tyr Gln Cys
 110 115 120
 Lys Val Lys Lys Ala Pro Gly Val Ala Asn Lys Lys Ile His Leu
 125 130 135

Val Val Leu Val Lys Pro Ser Gly Ala Arg Cys Tyr Val Asp Gly
140 145 150

Ser Glu Glu Ile Gly Ser Asp Phe Lys Ile Lys Cys Glu Pro Lys
155 160 165

Glu Gly Ser Leu Pro Leu Gln Tyr Glu Trp Gln Lys Leu Ser Asp
170 175 180

Ser Gln Lys Met Pro Thr Ser Trp Leu Ala Glu Met Thr Ser Ser
185 190 195

Val Ile Ser Val Lys Asn Ala Ser Ser Glu Tyr Ser Gly Thr Tyr
200 205 210

Ser Cys Thr Val Arg Asn Arg Val Gly Ser Asp Gln Cys Leu Leu
215 220 225

Arg Leu Asn Val Val Pro Pro Ser Asn Lys Ala Gly Leu Ile Ala
230 235 240

Gly Ala Ile Ile Gly Thr Leu Leu Ala Leu Ala Leu Ile Gly Leu
245 250 255

Ile Ile Phe Cys Cys Arg Lys Lys Arg Arg Glu Glu Lys Tyr Glu
260 265 270

Lys Glu Val His His Asp Ile Arg Glu Asp Val Pro Pro Pro Lys
275 280 285

Ser Arg Thr Ser Thr Ala Arg Ser Tyr Ile Gly Ser Asn His Ser
290 295 300

Ser Leu Gly Ser Met Ser Pro Ser Asn Met Glu Gly Tyr Ser Lys
305 310 315

Thr Gln Tyr Asn Gln Val Pro Ser Glu Asp Phe Glu Arg Thr Pro
320 325 330

Gln Ser Pro Thr Leu Pro Pro Ala Lys Phe Lys Tyr Pro Tyr Lys
335 340 345

Thr Asp Gly Ile Thr Val Val
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<210> 506
<211> 1705
<212> DNA
<213> Homo Sapien

<400> 506
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ccagctgcct ccaggcagcc agccctcaag catcacttac aggaccagag 150
ggacaagaca tgactgtgat gaggagctgc ttctcgccaat ttaacaccaa 200

gaagaattga ggctgcttgg gaggaaggcc aggaggaaca cgagactgag 250
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 ttctgccctc ctttgctggc gacagcctct caaatgcaga tggttgtgct 350
 cccttgccctg ggttttaccc tgcttctctg gagccaggta tcagggggccc 400
 agggccaaga attccacttt gggccctgcc aagtgaaggg ggttgttccc 450
 cagaaactgt ggggaagcctt ctgggctgtg aaagacacta tgcaagctca 500
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 agcagctctg accaaagccc ttggggaagt ggacattctt ctgacctgga 850
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 gaagggtgct ctggatgctg tgaagagtct acagagaaga ttcttgtatt 1100
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 ggggtaaggt gcatctgttt gaaaagtaaa cgataaaatg tggattaaag 1450
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ccctgctaataaaagacaacataactccaaa aaaaaaaaaa aaaaaaaaaa 1700

aaaaa 1705

<210> 507

<211> 206

<212> PRT

<213> Homo Sapien

<400> 507

Met	Asn	Phe	Gln	Gln	Arg	Leu	Gln	Ser	Leu	Trp	Thr	Leu	Ala	Arg
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Pro	Phe	Cys	Pro	Pro	Leu	Leu	Ala	Thr	Ala	Ser	Gln	Met	Gln	Met
				20					25					30

Val	Val	Leu	Pro	Cys	Leu	Gly	Phe	Thr	Leu	Leu	Leu	Trp	Ser	Gln
				35					40					45

Val	Ser	Gly	Ala	Gln	Gly	Gln	Glu	Phe	His	Phe	Gly	Pro	Cys	Gln
				50					55					60

Val	Lys	Gly	Val	Val	Pro	Gln	Lys	Leu	Trp	Glu	Ala	Phe	Trp	Ala
				65					70					75

Val	Lys	Asp	Thr	Met	Gln	Ala	Gln	Asp	Asn	Ile	Thr	Ser	Ala	Arg
				80					85					90

Leu	Leu	Gln	Gln	Glu	Val	Leu	Gln	Asn	Val	Ser	Asp	Ala	Glu	Ser
				95					100					105

Cys	Tyr	Leu	Val	His	Thr	Leu	Leu	Glu	Phe	Tyr	Leu	Lys	Thr	Val
				110					115					120

Phe	Lys	Asn	His	His	Asn	Arg	Thr	Val	Glu	Val	Arg	Thr	Leu	Lys
				125					130					135

Ser	Phe	Ser	Thr	Leu	Ala	Asn	Asn	Phe	Val	Leu	Ile	Val	Ser	Gln
				140					145					150

Leu	Gln	Pro	Ser	Gln	Glu	Asn	Glu	Met	Phe	Ser	Ile	Arg	Asp	Ser
				155					160					165

Ala	His	Arg	Arg	Phe	Leu	Leu	Phe	Arg	Arg	Ala	Phe	Lys	Gln	Leu
				170					175					180

Asp	Val	Glu	Ala	Ala	Leu	Thr	Lys	Ala	Leu	Gly	Glu	Val	Asp	Ile
				185					190					195

Leu	Leu	Thr	Trp	Met	Gln	Lys	Phe	Tyr	Lys	Leu
				200					205	

<210> 508

<211> 924

<212> DNA

<213> Homo Sapien

<400> 508

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 cggctctcagg agatgtctga tttccacaga catgcaccat atagaagaga 150
 gtttccaaga aatcaaaaga gccatccaag ctaaggacac cttcccaa 200
 gtcaactatcc tgtccacatt ggagactctg cagatcatta agcccttaga 250
 tgtgtgctgc gtgaccaaga acctcctggc gttctacgtg gacaggggtg 300
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 ataaattcca tattttacct atga 924

<210> 509
 <211> 177
 <212> PRT
 <213> Homo Sapien

<400> 509
 Met Lys Leu Gln Cys Val Ser Leu Trp Leu Leu Gly Thr Ile Leu
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 Ile Leu Cys Ser Val Asp Asn His Gly Leu Arg Arg Cys Leu Ile
 20 25 30
 Ser Thr Asp Met His His Ile Glu Glu Ser Phe Gln Glu Ile Lys
 35 40 45
 Arg Ala Ile Gln Ala Lys Asp Thr Phe Pro Asn Val Thr Ile Leu
 50 55 60
 Ser Thr Leu Glu Thr Leu Gln Ile Ile Lys Pro Leu Asp Val Cys
 65 70 75

Cys	Val	Thr	Lys	Asn	Leu	Leu	Ala	Phe	Tyr	Val	Asp	Arg	Val	Phe	80	85	90
Lys	Asp	His	Gln	Glu	Pro	Asn	Pro	Lys	Ile	Leu	Arg	Lys	Ile	Ser	95	100	105
Ser	Ile	Ala	Asn	Ser	Phe	Leu	Tyr	Met	Gln	Lys	Thr	Leu	Arg	Gln	110	115	120
Cys	Gln	Glu	Gln	Arg	Gln	Cys	His	Cys	Arg	Gln	Glu	Ala	Thr	Asn	125	130	135
Ala	Thr	Arg	Val	Ile	His	Asp	Asn	Tyr	Asp	Gln	Leu	Glu	Val	His	140	145	150
Ala	Ala	Ala	Ile	Lys	Ser	Leu	Gly	Glu	Leu	Asp	Val	Phe	Leu	Ala	155	160	165
Trp	Ile	Asn	Lys	Asn	His	Glu	Val	Met	Phe	Ser	Ala				170	175	

<210> 510
 <211> 996
 <212> DNA
 <213> Homo Sapien

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 tccacaggtg tccactccca ggtccaactg cacctcgggt ctatcgataa 200
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cacaggagct cccgagcgcc gaggacaaca gcccgatggc cagtgacca 900
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cccgaaggc tgccgcccct tcgccaagtt catctagggt cgctgg 996

<210> 511
<211> 251
<212> PRT
<213> Homo Sapien

<400> 511
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20 25 30
Leu Leu Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala
35 40 45
Thr Ala Arg Asn Ser Tyr His Leu Gln Ile His Lys Asn Gly His
50 55 60
Val Asp Gly Ala Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile
65 70 75
Arg Ser Glu Asp Ala Gly Phe Val Val Ile Thr Gly Val Met Ser
80 85 90
Arg Arg Tyr Leu Cys Met Asp Phe Arg Gly Asn Ile Phe Gly Ser
95 100 105
His Tyr Phe Asp Pro Glu Asn Cys Arg Phe Gln His Gln Thr Leu
110 115 120
Glu Asn Gly Tyr Asp Val Tyr His Ser Pro Gln Tyr His Phe Leu
125 130 135
Val Ser Leu Gly Arg Ala Lys Arg Ala Phe Leu Pro Gly Met Asn
140 145 150
Pro Pro Pro Tyr Ser Gln Phe Leu Ser Arg Arg Asn Glu Ile Pro
155 160 165
Leu Ile His Phe Asn Thr Pro Ile Pro Arg Arg His Thr Arg Ser
170 175 180
Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu Asn Val Leu Lys Pro
185 190 195
Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys Ser Gln Glu Leu
200 205 210
Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp Pro Leu Gly
215 220 225

Val	Val	Arg	Gly	Gly	Arg	Val	Asn	Thr	His	Ala	Gly	Gly	Thr	Gly
				230					235					240
Pro	Glu	Gly	Cys	Arg	Pro	Phe	Ala	Lys	Phe	Ile				
				245					250					

<210> 512
 <211> 2015
 <212> DNA
 <213> Homo Sapien

<400> 512
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 ctgctgggag gttgggggtct ctgggagctc tgcaggcccc agcaccgcga 150
 gagcagacac tgcgatgaca acggacgaca cagaagtgcc cgctatgact 200
 ctagcaccgg gccacgccgc tctggaaact caaacgctga gcgctgagac 250
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 ggggagccaa gagaatttcc cctgcaagag agaccaggag tttcacaaaa 350
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gtggcccaaa aaaaa 2015

<210> 513
<211> 482
<212> PRT
<213> Homo Sapien

<400> 513
Met Gly Cys Leu Trp Gly Leu Ala Leu Pro Leu Phe Phe Phe Cys
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Trp Glu Val Gly Val Ser Gly Ser Ser Ala Gly Pro Ser Thr Arg
20 25 30
Arg Ala Asp Thr Ala Met Thr Thr Asp Asp Thr Glu Val Pro Ala
35 40 45
Met Thr Leu Ala Pro Gly His Ala Ala Leu Glu Thr Gln Thr Leu
50 55 60
Ser Ala Glu Thr Ser Ser Arg Ala Ser Thr Pro Ala Gly Pro Ile
65 70 75
Pro Glu Ala Glu Thr Arg Gly Ala Lys Arg Ile Ser Pro Ala Arg

Ser	Gly	Ala	Ala	Pro	Val	Ser	Ile	Glu	Ala	Gly	Ser	Ala	Val	Gly
				380					385					390
Lys	Thr	Thr	Ser	Phe	Ala	Gly	Ser	Ser	Ala	Ser	Ser	Tyr	Ser	Pro
				395					400					405
Ser	Glu	Ala	Ala	Leu	Lys	Asn	Phe	Thr	Pro	Ser	Glu	Thr	Pro	Thr
				410					415					420
Met	Asp	Ile	Ala	Thr	Lys	Gly	Pro	Phe	Pro	Thr	Ser	Arg	Asp	Pro
				425					430					435
Leu	Pro	Ser	Val	Pro	Pro	Thr	Thr	Thr	Asn	Ser	Ser	Arg	Gly	Thr
				440					445					450
Asn	Ser	Thr	Leu	Ala	Lys	Ile	Thr	Thr	Ser	Ala	Lys	Thr	Thr	Met
				455					460					465
Lys	Pro	Gln	Gln	Pro	Arg	Pro	Arg	Leu	Pro	Gly	Arg	Gly	Arg	Pro
				470					475					480

Gln Thr

<210> 514
 <211> 2284
 <212> DNA
 <213> Homo Sapien

<400> 514
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 ggcgcggggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
 cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
 gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
 tgacttacac tttggttaata atttgcttcc tgacactaag gctgtctgct 300
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 gtcattctct tctaaggga tcagaggcaa tgagcccgta tatacttcaa 400
 ctcaagaaga ctgcattaat tcttgctggt caacaaaaaa catatcaggg 450
 gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
 acccaactgc tacctatctt tctgtcccaa cgaggaagcc tgtccattga 550
 aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
 ttgaccagaa atttgccaag ccaagagtta cccaggaag attctctctt 650
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 cttcccagcc acagctggcc accacagctc cacctgtaac cactgtcact 1050
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 tgggtgtcctg ttcttggtga taggcctcgt cctcctgggt agaatccttt 1450
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 tatgcaaaga aacagggttag gacatctagg ttccaattca ttcacattct 2150

tggttccaga taaaatcaac tgtttatatc aattttctaata ggatttgctt 2200
 ttcttttttat atggattcct ttaaaaactta ttccagatgt agttccttcc 2250
 aattaaatat ttgaataaat cttttgttac tcaa 2284

<210> 515
 <211> 431
 <212> PRT
 <213> Homo Sapien

<400> 515
 Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile
 1 5 10 15
 Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu
 20 25 30
 Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu
 35 40 45
 Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
 50 55 60
 Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly
 65 70 75
 Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
 80 85 90
 Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
 95 100 105
 Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
 110 115 120
 Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
 125 130 135
 Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
 140 145 150
 Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp
 155 160 165
 Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
 170 175 180
 His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
 185 190 195
 Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser
 200 205 210
 Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
 215 220 225
 Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala

230	235	240
Thr Pro Lys Pro Ala Thr Leu Leu Pro	Thr Asn Ala Ser Val Thr	
245	250	255
Pro Ser Gly Thr Ser Gln Pro Gln Leu	Ala Thr Thr Ala Pro Pro	
260	265	270
Val Thr Thr Val Thr Ser Gln Pro Pro	Thr Thr Leu Ile Ser Thr	
275	280	285
Val Phe Thr Arg Ala Ala Ala Thr Leu	Gln Ala Met Ala Thr Thr	
290	295	300
Ala Val Leu Thr Thr Thr Phe Gln Ala	Pro Thr Asp Ser Lys Gly	
305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu	Ile Ser Asn Leu Thr Leu	
320	325	330
Asn Thr Gly Asn Val Tyr Asn Pro Thr	Ala Leu Ser Met Ser Asn	
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr	Ala Ser Trp Glu Gly Arg	
350	355	360
Glu Ala Ser Pro Gly Ser Ser Ser Gln	Gly Ser Val Pro Glu Asn	
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp	Leu Leu Ile Gly Ser Leu	
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile	Gly Leu Val Leu Leu Gly	
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg	Lys Arg Tyr Ser Arg Leu	
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val	Asp Ile	
425	430	

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 <211> 2749
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 1869, 1887
 <223> unknown base

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ctgagggacc accggaagta ctggtgcagg aaggggtggga tcctcttctc 200
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Asp	Thr	Val	Ser	Leu 35	Gln	Cys	Thr	Tyr	Arg 40	Glu	Glu	Leu	Arg	Asp 45
His	Arg	Lys	Tyr	Trp 50	Cys	Arg	Lys	Gly	Gly 55	Ile	Leu	Phe	Ser	Arg 60
Cys	Ser	Gly	Thr	Ile 65	Tyr	Ala	Glu	Glu	Glu 70	Gly	Gln	Glu	Thr	Met 75
Lys	Gly	Arg	Val	Ser 80	Ile	Arg	Asp	Ser	Arg 85	Gln	Glu	Leu	Ser	Leu 90
Ile	Val	Thr	Leu	Trp 95	Asn	Leu	Thr	Leu	Gln 100	Asp	Ala	Gly	Glu	Tyr 105
Trp	Cys	Gly	Val	Glu 110	Lys	Arg	Gly	Pro	Asp 115	Glu	Ser	Leu	Leu	Ile 120
Ser	Leu	Phe	Val	Phe 125	Pro	Gly	Pro	Cys	Cys 130	Pro	Pro	Ser	Pro	Ser 135
Pro	Thr	Phe	Gln	Pro 140	Leu	Ala	Thr	Thr	Arg 145	Leu	Gln	Pro	Lys	Ala 150
Lys	Ala	Gln	Gln	Thr 155	Gln	Pro	Pro	Gly	Leu 160	Thr	Ser	Pro	Gly	Leu 165
Tyr	Pro	Ala	Ala	Thr 170	Thr	Ala	Lys	Gln	Gly 175	Lys	Thr	Gly	Ala	Glu 180
Ala	Pro	Pro	Leu	Pro 185	Gly	Thr	Ser	Gln	Tyr 190	Gly	His	Glu	Arg	Thr 195
Ser	Gln	Tyr	Thr	Gly 200	Thr	Ser	Pro	His	Pro 205	Ala	Thr	Ser	Pro	Pro 210
Ala	Gly	Ser	Ser	Arg 215	Pro	Pro	Met	Gln	Leu 220	Asp	Ser	Thr	Ser	Ala 225
Glu	Asp	Thr	Ser	Pro 230	Ala	Leu	Ser	Ser	Gly 235	Ser	Ser	Lys	Pro	Arg 240
Val	Ser	Ile	Pro	Met 245	Val	Arg	Ile	Leu	Ala 250	Pro	Val	Leu	Val	Leu 255
Leu	Ser	Leu	Leu	Ser 260	Ala	Ala	Gly	Leu	Ile 265	Ala	Phe	Cys	Ser	His 270
Leu	Leu	Leu	Trp	Arg 275	Lys	Glu	Ala	Gln	Gln 280	Ala	Thr	Glu	Thr	Gln 285
Arg	Asn	Glu	Lys	Phe 290	Trp	Leu	Ser	Arg	Leu 295	Thr	Ala	Glu	Glu	Lys 300
Glu	Ala	Pro	Ser	Gln 305	Ala	Pro	Glu	Gly	Asp 310	Val	Ile	Ser	Met	Pro 315
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Ser Ala

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<220>

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<210> 519

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 519

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<210> 522

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 522

actaggctgt atgcctgggt gggc 24

<210> 523

<211> 43

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<210> 524

<211> 26

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<400> 524

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<210> 525

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 525

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<210> 526

<211> 24

<212> DNA

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<210> 527

<211> 24

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 527

gatgaacttg gcgaaggggc ggca 24

<210> 528

